



6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[EPA-HQ-OAR-2014-0741; FRL-9969-06-OAR]

RIN 2060-AS46

National Emission Standards for Hazardous Air Pollutants for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action finalizes the residual risk and technology review (RTR) conducted for the chemical recovery combustion sources at kraft, soda, sulfite, and stand-alone semichemical pulp mills regulated under the national emission standards for hazardous air pollutants (NESHAP). We are finalizing our proposed determination that risks from the source category are acceptable and that the standards provide an ample margin of safety to protect public health. We are also finalizing amendments to the NESHAP based on developments in practices, processes, and control technologies identified as part of the technology review. These final amendments include revisions to the opacity monitoring provisions and the addition of requirements to maintain proper operation of the electrostatic precipitator (ESP) automatic voltage control (AVC). Additional amendments are also being finalized including the requirement to conduct 5-year periodic emissions testing, and submit electronic reports; revisions to provisions addressing periods of startup, shutdown, and malfunction (SSM); and technical and editorial changes. These amendments are made under the authority of the Clean Air Act (CAA) and will improve the effectiveness of the rule.

DATES: This final rule is effective on **[INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]**. The incorporation by reference of certain publications listed in the rule is approved by the Director of the **Federal Register** as of **[INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: The Environmental Protection Agency (EPA) has established a docket for this action under Docket ID No. EPA-HQ-OAR-2014-0741. All documents in the docket are listed on the <http://www.regulations.gov> Web site. Although listed in the index, some information is not publicly available, *e.g.*, confidential business information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically through <http://www.regulations.gov>, or in hard copy at the EPA Docket Center, EPA WJC West Building, Room Number 3334, 1301 Constitution Ave., NW, Washington, DC. The Public Reading Room hours of operation are 8:30 a.m. to 4:30 p.m. Eastern Standard Time (EST), Monday through Friday. The telephone number for the Public Reading Room is (202) 566–1744, and the telephone number for the Docket Center is (202) 566–1742.

FOR FURTHER INFORMATION CONTACT: For questions about this final action, contact Dr. Kelley Spence, Sector Policies and Programs Division (Mail Code: E143-03), Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina, 27711; telephone number: (919) 541–3158; fax number: (919) 541–0516; and email address: spence.kelley@epa.gov. For specific information regarding the risk modeling methodology, contact Mr. James Hirtz, Health and Environmental Impacts Division (Mail Code: C539-02), Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency,

Research Triangle Park, North Carolina 27711; telephone number: (919) 541–0881; and email address: *hirtz.james@epa.gov*. For information about the applicability of the NESHAP to a particular entity, contact Ms. Sara Ayres, Office of Enforcement and Compliance Assurance, U.S. Environmental Protection Agency, USEPA Region 5 (Mail Code: E-19J), 77 West Jackson Boulevard, Chicago, Illinois 60604; telephone number: (312) 353-6266; and email address: *ayres.sara@epa.gov*.

SUPPLEMENTARY INFORMATION:

Preamble acronyms and abbreviations. We use multiple acronyms and terms in this preamble. While this list may not be exhaustive, to ease the reading of this preamble and for reference purposes, the EPA defines the following terms and acronyms here:

ASTM	American Society for Testing and Materials
AVC	automatic voltage control
BLO	black liquor oxidation
CAA	Clean Air Act
CBI	confidential business information
CDX	Central Data Exchange
CEDRI	Compliance and Emissions Data Reporting Interface
CFR	Code of Federal Regulations
CHIEF	Clearinghouse for Inventories and Emissions Factors
CMS	continuous monitoring system
COMS	continuous opacity monitoring system
CPMS	continuous parameter monitoring system
CRA	Congressional Review Act
DAS	data acquisition system
D.C. Cir.	United States Court of Appeals for the District of Columbia Circuit
DCE	direct contact evaporator
EPA	Environmental Protection Agency
ERT	Electronic Reporting Tool
ESP	electrostatic precipitator
EST	Eastern Standard Time
FR	Federal Register
HAP	hazardous air pollutant
HI	hazard index

HQ	hazard quotient
IBR	incorporation by reference
ICR	Information Collection Request
km	kilometer
MACT	maximum achievable control technology
MIR	maximum individual risk
NAAQS	National Ambient Air Quality Standards
NAICS	North American Industry Classification System
NAS	National Academy of Sciences
NDCE	nondirect contact evaporator
NESHAP	national emission standards for hazardous air pollutants
No.	number
NRDC	Natural Resources Defense Council
NSPS	new source performance standards
NTTAA	National Technology Transfer and Advancement Act
OAQPS	Office of Air Quality Planning and Standards
OEHHA	Office of Environmental Health Hazard Assessment
OMB	Office of Management and Budget
PAH	polycyclic aromatic hydrocarbons
PB-HAP	hazardous air pollutant known to be persistent and bio-accumulative in the environment
PM	particulate matter
PRA	Paperwork Reduction Act
PS-1	Performance Specification 1
QA	quality assurance
REL	reference exposure level
RFA	Regulatory Flexibility Act
RIN	Regulatory Information Number
RTO	regenerative thermal oxidizer
RTR	residual risk and technology review
SAB	Science Advisory Board
SDT	smelt dissolving tank
SSM	startup, shutdown, and malfunction
THC	total hydrocarbons
TOSHI	target organ-specific hazard index
tpy	tons per year
TRIM.FaTE	Total Risk Integrated Methodology.Fate, Transport, and Ecological Exposure model
UMRA	Unfunded Mandates Reform Act
U.S.	United States
U.S.C.	United States Code

v.	versus
WebFIRE	Web Factor Information Retrieval System
XML	extensible markup language

Background information. On December 30, 2016, the EPA proposed revisions to the NESHAP for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills based on our RTR. In this action, we are finalizing amendments to the rule based on public comment and updated analyses. We summarize comments that the EPA received regarding the proposed rule that resulted in changes in the final rulemaking package and provide our responses in this preamble. A summary of all other public comments on the proposal and the EPA's responses to those comments is available in the document titled, *National Emissions Standards for Hazardous Air Pollutants for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills (40 CFR Part 63, Subpart MM)--Residual Risk and Technology Review, Final Amendments: Response to Public Comments on December 30, 2016 Proposal*, in the docket for this action (Docket ID No. EPA-HQ-OAR-2014-0741). A "track changes" version of the regulatory language that incorporates the changes in this action is also available in the docket.

Organization of this document. The information in this preamble is organized as follows:

I. General Information

A. Does this action apply to me?

B. Where can I get a copy of this document and other related information?

C. Judicial Review and Administrative Reconsideration

II. Background

A. What is the statutory authority for this action?

B. What is the subpart MM source category and how does the NESHAP regulate HAP emissions from the source category?

C. What changes did we propose for the subpart MM source category in our December 30, 2016, proposal?

III. What is included in this final rule?

A. What are the final rule amendments based on the risk review for the subpart MM source category?

- B. What are the final rule amendments based on the technology review for the subpart MM source category?
- C. What are the final rule amendments addressing emissions during periods of startup, shutdown, and malfunction?
- D. What other changes have been made to the NESHAP?
- E. What are the effective and compliance dates of the standards?
- F. What are the requirements for submission of performance test data to the EPA?
- IV. What is the rationale for our final decisions and amendments for the subpart MM source category?
 - A. Residual Risk Review for the Subpart MM Source Category
 - B. Technology Review for the Subpart MM Source Category
 - C. Changes to SSM Provisions
 - D. Emissions Testing
 - E. CPMS Operating Limits
 - F. Recordkeeping and Reporting Requirements
 - G. Technical and Editorial Changes
- V. Summary of Cost, Environmental, and Economic Impacts and Additional Analyses Conducted
 - A. What are the affected sources?
 - B. What are the air quality impacts?
 - C. What are the cost impacts?
 - D. What are the economic impacts?
 - E. What are the benefits?
 - F. What analysis of environmental justice did we conduct?
 - G. What analysis of children's environmental health did we conduct?
- VI. Statutory and Executive Order Reviews
 - A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review
 - B. Executive Order 13771: Reducing Regulations and Controlling Regulatory Costs
 - C. Paperwork Reduction Act (PRA)
 - D. Regulatory Flexibility Act (RFA)
 - E. Unfunded Mandates Reform Act (UMRA)
 - F. Executive Order 13132: Federalism
 - G. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments
 - H. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks
 - I. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use
 - J. National Technology Transfer and Advancement Act (NTTAA) and 1 CFR Part 51
 - K. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations
 - L. Congressional Review Act (CRA)

I. General Information

- A. *Does this action apply to me?*

Regulated entities. Categories and entities potentially regulated by this action are shown in Table 1 of this preamble.

Table 1. NESHAP and Industrial Source Categories Affected by This Final Action

Source Category	NESHAP	NAICS ¹ Code
Pulp and Paper Production	Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills	32211, 32212, 32213

¹ North American Industry Classification System.

Table 1 of this preamble is not intended to be exhaustive, but rather to provide a guide for readers regarding entities likely to be affected by the final action for the source category listed. To determine whether your facility is affected, you should examine the applicability criteria in the appropriate NESHAP. If you have any questions regarding the applicability of any aspect of this NESHAP, please contact the appropriate person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section of this preamble.

B. Where can I get a copy of this document and other related information?

In addition to being available in the docket, an electronic copy of this final action will also be available on the Internet. Following signature by the EPA Administrator, the EPA will post a copy of this final action at: <https://www.epa.gov/stationary-sources-air-pollution/kraft-soda-sulfite-and-stand-alone-semichemical-pulp-mills-mact-ii>. Following publication in the **Federal Register**, the EPA will post the **Federal Register** version and key technical documents at this same Web site.

Additional information is available on the RTR Web site at <https://www3.epa.gov/ttn/atw/rrisk/rtrpg.html>. This information includes an overview of the RTR program, links to project Web sites for the RTR source categories, and detailed emissions and other data we used as inputs to the risk assessments.

C. Judicial Review and Administrative Reconsideration

Under CAA section 307(b)(1), judicial review of this final action is available only by filing a petition for review in the United States Court of Appeals for the District of Columbia Circuit by **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**. Under CAA section 307(b)(2), the requirements established by this final rule may not be challenged separately in any civil or criminal proceedings brought by the EPA to enforce the requirements.

Section 307(d)(7)(B) of the CAA further provides that only an objection to a rule or procedure which was raised with reasonable specificity during the period for public comment (including any public hearing) may be raised during judicial review. This section also provides a mechanism for the EPA to reconsider the rule if the person raising an objection can demonstrate to the Administrator that it was impracticable to raise such objection within the period for public comment or if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the outcome of the rule. Any person seeking to make such a demonstration should submit a Petition for Reconsideration to the Office of the Administrator, U.S. EPA, Room 3000, EPA WJC South Building, 1200 Pennsylvania Ave., NW, Washington, DC 20460, with a copy to both the person(s) listed in the preceding **FOR FURTHER INFORMATION CONTACT** section, and the Associate General Counsel for the Air and Radiation Law Office, Office of General Counsel (Mail Code: 2344A), U.S. EPA, 1200 Pennsylvania Ave., NW, Washington, DC 20460.

II. Background

A. What is the statutory authority for this action?

Section 112 of the CAA establishes a two-stage regulatory process to address emissions of hazardous air pollutants (HAPs) from stationary sources. In the first stage, the EPA must identify categories of sources emitting one or more of the HAPs listed in CAA section 112(b) and then promulgate technology-based NESHAP for those sources. “Major sources” are those that emit, or have the potential to emit, any single HAP at a rate of 10 tons per year (tpy) or more, or 25 tpy or more of any combination of HAPs. For major sources, these standards are commonly referred to as maximum achievable control technology (MACT) standards and must reflect the maximum degree of emission reductions of HAPs achievable (after considering cost, energy requirements, and non-air quality health and environmental impacts). In developing MACT standards, CAA section 112(d)(2) directs the EPA to consider the application of measures, processes, methods, systems or techniques, including, but not limited to, those that reduce the volume of or eliminate HAP emissions through process changes, substitution of materials, or other modifications; enclose systems or processes to eliminate emissions; collect, capture, or treat HAPs when released from a process, stack, storage, or fugitive emissions point; are design, equipment, work practice, or operational standards; or any combination of the above.

For these MACT standards, the statute specifies certain minimum stringency requirements, which are referred to as MACT floor requirements, and which may not be based on cost considerations. See CAA section 112(d)(3). For new sources, the MACT floor cannot be less stringent than the emission control achieved in practice by the best-controlled similar source. The MACT standards for existing sources can be less stringent than floors for new sources, but they cannot be less stringent than the average emission limitation achieved by the best-performing 12 percent of existing sources in the category or subcategory (or the best-performing 5 sources for categories or subcategories with fewer than 30 sources). In developing MACT

standards, we must also consider control options that are more stringent than the floor under CAA section 112(d)(2). We may establish standards more stringent than the floor, based on the consideration of the cost of achieving the emissions reductions, any non-air quality health and environmental impacts, and energy requirements.

In the second stage of the regulatory process, the CAA requires the EPA to undertake two different analyses, which we refer to as the technology review and the residual risk review. Under the technology review, we must review the technology-based standards and revise them “as necessary (taking into account developments in practices, processes, and control technologies)” no less frequently than every 8 years, pursuant to CAA section 112(d)(6). Under the residual risk review, we must evaluate the risk to public health remaining after application of the technology-based standards and revise the standards, if necessary, to provide an ample margin of safety to protect public health or to prevent, taking into consideration costs, energy, safety, and other relevant factors, an adverse environmental effect. The residual risk review is required within 8 years after promulgation of the technology-based standards, pursuant to CAA section 112(f). In conducting the residual risk review, if the EPA determines that the current standards provide an ample margin of safety to protect public health, it is not necessary to revise the MACT standards pursuant to CAA section 112(f).¹ For more information on the statutory authority for this rule, see 81 FR 97049-51.

B. What is the subpart MM source category and how does the NESHAP regulate HAP emissions from the source category?

¹ The U.S. Court of Appeals for the District of Columbia Circuit has affirmed this approach of implementing CAA section 112(f)(2)(A): *NRDC v. EPA*, 529 F.3d 1077, 1083 (D.C. Cir. 2008) (“If EPA determines that the existing technology-based standards provide an ‘ample margin of safety,’ then the Agency is free to readopt those standards during the residual risk rulemaking.”).

As defined in the *Initial List of Categories of Sources Under Section 112(c)(1) of the Clean Air Act Amendments of 1990* (see 57 FR 31576, July 16, 1992), the “Pulp and Paper Production” source category is any facility engaged in the production of pulp and/or paper. The EPA developed the NESHAPs for the source category in two phases. The first phase, 40 CFR part 63, subpart S, regulates non-combustion processes at mills that (1) chemically pulp wood fiber (using kraft, sulfite, soda, and semichemical methods), (2) mechanically pulp wood fiber (*e.g.*, groundwood, thermomechanical, pressurized), (3) pulp secondary fibers (deinked and non-deinked), (4) pulp non-wood material, and (5) manufacture paper. Subpart S was originally promulgated on April 15, 1998, (63 FR 18504). The second phase, 40 CFR part 63, subpart MM, regulates chemical recovery combustion sources at kraft, soda, sulfite, and stand-alone semichemical pulp mills, and was originally promulgated on January 12, 2001 (66 FR 3180). The chemical recovery combustion sources include kraft and soda recovery furnaces, smelt dissolving tanks (SDTs), and lime kilns; kraft black liquor oxidation (BLO) units; sulfite combustion units; and semichemical combustion units. Because subpart MM sources comprise a subset of the sources at a pulp and paper mill, for purposes of this preamble, we are referring to the source category for this NESHAP as the “subpart MM source category.”

We already completed the RTR for 40 CFR part 63, subpart S, with final amendments published in the **Federal Register** on September 11, 2012 (77 FR 55698). For the 40 CFR part 63, subpart MM RTR, we published proposed amendments in the **Federal Register** on December 30, 2016 (81 FR 97046). We conducted a risk assessment and technology review of the emission sources covered by subpart MM, as well as a risk assessment of the whole facility. The facility-wide risk assessment includes emissions from all sources of HAPs at the facility, including sources covered by other NESHAP (*e.g.*, pulp and paper production processes covered

under subpart S, boilers covered under 40 CFR part 63, subpart DDDDD, and paper and other web coating operations covered under 40 CFR part 63, subpart JJJJ). This final rule focuses exclusively on the RTR for subpart MM. The EPA is not amending subpart S, subpart DDDDD, or subpart JJJJ in this action.

According to the results of the EPA's 2011 pulp and paper Information Collection Request (ICR), and updates based on more recent information, there are a total of 107 major sources in the United States (U.S.) that conduct chemical recovery combustion operations, including 97 kraft pulp mills, 1 soda pulp mill, 3 sulfite pulp mills, and 6 stand-alone semichemical pulp mills.

Subpart MM of 40 CFR part 63 includes numerical emission limits for recovery furnaces, SDTs, lime kilns, and sulfite and semichemical combustion units. The control systems used by most mills to meet the subpart MM emission limits are as follows:

- Recovery furnaces: ESPs, wet scrubbers, and nondirect contact evaporator (NDCE) furnace design with dry-bottom ESP and dry particulate matter (PM) return system.
- Smelt dissolving tanks: wet scrubbers, mist eliminators, and venting to recovery furnace.
- Lime kilns: ESPs and wet scrubbers.
- Sulfite combustion units: wet scrubbers and mist eliminators.
- Semichemical combustion units: wet scrubbers, ESPs, and regenerative thermal oxidizers (RTOs).

C. What changes did we propose for the subpart MM source category in our December 30, 2016, proposal?

On December 30, 2016, the EPA published a proposed rule in the **Federal Register** for the subpart MM NESHAP for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills, which took into consideration the RTR analyses. In that action, we proposed to:

- Reduce the opacity limits for recovery furnaces;

- Revise the opacity monitoring allowances for recovery furnaces and lime kilns (*i.e.*, the percentage of the operating time within a semiannual period below which opacity can exceed the limit without it being considered a violation);
- Require ESP parameter monitoring for recovery furnaces and lime kilns equipped with ESPs;
- Clarify the monitoring requirements for combined ESP/wet scrubber controls;
- Provide alternative monitoring parameters for SDT wet scrubbers;
- Require periodic air emissions performance testing once every 5 years as facilities renew their operating permits;
- Eliminate the SSM exemption;
- Provide alternative monitoring parameters for wet scrubbers and ESPs during SSM periods;
- Specify procedures for establishing continuous parameter monitoring system (CPMS) operating limits;
- Reduce the reporting frequency and require electronic submission for excess emissions reports;
- Require mills to submit electronic copies of performance test reports; and
- Make a number of technical and editorial changes.

III. What is included in this final rule?

This action finalizes the EPA's determinations pursuant to the RTR provisions of CAA section 112 for the subpart MM source category and amends the subpart MM NESHAP based on those determinations. This action also finalizes other changes to the NESHAP, including a requirement for 5-year periodic emissions testing; electronic reporting; revisions to provisions addressing periods of SSM; and technical and editorial changes. This final action is based on the proposed rulemaking (published in the **Federal Register** on December 30, 2016) and reflects refinements made in response to comments received during the public comment period for that proposal.

A. What are the final rule amendments based on the risk review for the subpart MM source category?

The EPA proposed no changes to the subpart MM NESHAP based on the risk review conducted pursuant to CAA section 112(f). We are finalizing our proposed determination that risks from the source category are acceptable, considering all of the health information and

factors evaluated, and also considering risk estimation uncertainty. We are also finalizing our proposed determination that the current standards provide an ample margin of safety, as well as our finding regarding the absence of adverse environmental effects. The EPA received no new data or other information during the public comment period that affected our determinations. Therefore, we are not requiring additional controls and, thus, are not making any revisions to the existing standards under CAA section 112(f).

B. What are the final rule amendments based on the technology review for the subpart MM source category?

We determined that there are developments in practices, processes, and control technologies that warrant revisions to the NESHAP for this source category. Therefore, to satisfy the requirements of CAA section 112(d)(6), we are revising the NESHAP as follows:

- Revising the opacity monitoring allowance for all recovery furnaces equipped with ESPs from 6 percent to 2 percent;
- Revising the opacity monitoring allowance for all lime kilns equipped with ESPs from 6 percent to 3 percent;
- Adding a requirement for recovery furnaces and lime kilns equipped with ESPs to maintain proper operation of the ESP AVC;
- Adding the aforementioned ESP requirement and wet scrubber parameter monitoring for emission units equipped with an ESP followed by a wet scrubber; and
- Providing alternative monitoring, specifically scrubber fan amperage, as an alternative to pressure drop measurement, for SDT dynamic scrubbers operating at ambient pressure and low-pressure entrainment scrubbers on SDTs where the fan speed does not vary.

C. What are the final rule amendments addressing emissions during periods of startup, shutdown and malfunction?

As proposed, we are finalizing amendments to the subpart MM NESHAP to eliminate the SSM exemption. Consistent with *Sierra Club v. EPA*, 551 F. 3d 1019 (D.C. Cir. 2008), the EPA has established standards in this rule that apply at all times. We are also revising Table 1 to Subpart MM of Part 63 (General Provisions applicability table) to change several references

related to requirements that apply during periods of SSM. We are eliminating or revising certain recordkeeping and reporting requirements related to the eliminated SSM exemption, including the requirement for an SSM plan. We are also making changes to the rule to remove or modify language that is no longer applicable due to the removal of the SSM exemption. With the final amendments to the 40 CFR part 63, subpart MM monitoring requirements, we determined that facilities in this source category can meet the applicable emissions standards in this NESHAP at all times, including periods of startup and shutdown; therefore, no additional standards are needed to address emissions during these periods.

The 40 CFR part 63, subpart MM monitoring requirements were analyzed and adjusted to ensure that continuous compliance can feasibly be demonstrated during periods of startup and shutdown. Subpart MM requires continuous opacity monitoring to indicate ongoing compliance with the PM emission limits. In developing the proposed standards for the subpart MM RTR, the EPA reviewed numerous continuous opacity monitoring datasets that included periods of startup and shutdown, and stated that the affected units would be able to comply with the proposed standards at all times. Further analysis of the datasets show that sufficient startup and shutdown data were included in the analyses to form the basis for our conclusions, even though not all units provided such data. Subpart MM also requires continuous RTO operating temperature and wet scrubber parameter monitoring. As proposed, we are removing the requirement to consider wet scrubber pressure drop during startup and shutdown because pressure drop is dependent on gas flow, which is transient (changing) during startup and shutdown. Continuous compliance is based on scrubber liquid flow rate monitoring during startup and shutdown instead of both pressure drop and liquid flow rate. We are also limiting the times when corrective actions are implemented or violations are recorded to times when spent pulping liquor or lime mud is fed (as

applicable). The final rule specifies that corrective action can include completion of transient startup and shutdown conditions as expeditiously as possible.

D. What other changes have been made to the NESHAP?

Other changes to the NESHAP that do not fall into the categories in the previous sections include:

- Requiring facilities to conduct periodic air emissions performance testing, with the first of the tests to be conducted within 3 years of the effective date of the revised standards, and thereafter no longer than 5 years following the previous performance test;
- Specifying procedures for establishing operating limits based on data recorded by CPMS, including the frequency for recording parameters and the averaging period for reducing the recorded readings;
- Reducing the frequency for submitting excess emissions reports from quarterly to semiannually in conjunction with requiring electronic reporting of excess emissions (in the future, as reporting forms are tested and become available - see section IV.F of this preamble);
- Requiring facilities to submit electronic copies of performance test reports;
- Requiring facilities to submit initial notifications and notifications of compliance status electronically; and
- Making various technical and editorial corrections.

E. What are the effective and compliance dates of the standards?

The revisions to the NESHAP being promulgated in this action are effective on **[INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]**. The compliance date for existing sources is October 11, 2019, with the exception of the first periodic performance test, which must be conducted by October 13, 2020, and the date to submit performance test data through CEDRI, which is within 60 days of completing the test. Facilities must comply with the changes set out in this final rule no later than 2 years after the effective date of the final rule. Section 112(i)(3) of the CAA provides that, for a standard or other regulation promulgated under CAA section 112, the Administrator shall establish a compliance date no later than 3 years after the effective date of the standard, except where otherwise provided. We conclude that 2 years are necessary to make the system adjustments needed to

demonstrate compliance with the revised requirements, including adjusting data acquisition systems (DAS) to include startup and shutdown periods and the revised opacity monitoring allowances, to transition to electronic excess emissions reporting, and to comply with revised monitoring requirements.

As noted in section IV.F of this preamble, the initial compliance date for electronic excess emissions reporting will be 1 year after the excess emissions reporting form (*i.e.*, a spreadsheet template) becomes available in the EPA's Compliance and Emissions Data Reporting Interface (CEDRI). A compliance date 2 years after promulgation allows 1 year for beta-testing of the e-reporting form before it is placed into CEDRI, followed by 1 year for facilities to begin using the final form.² A period of 3 years after promulgation is not needed for compliance because, as explained in section IV.B of this preamble, the EPA is not finalizing the proposed revisions to the opacity limits or ESP parameter monitoring requirements that would involve capital projects such as an ESP upgrade.

New sources must comply with all of the standards by **[INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]**, or upon startup, whichever is later.

F. What are the requirements for submission of performance test data to the EPA?

The EPA is requiring owners and operators of pulp and paper production facilities to submit electronic copies of certain required performance test reports to the EPA's Central Data Exchange (CDX) using the CEDRI. The electronic submittal of the reports addressed in this rulemaking will increase the usefulness of the data contained in those reports, is in keeping with current trends in data availability and transparency, will further assist in the protection of public health and the environment, will improve compliance by facilitating the ability of regulated

² A copy of the revised semiannual electronic excess emissions reporting form (spreadsheet template) incorporating public comments has been placed in the docket for this action (Docket ID No. EPA-HQ-OAR-2014-0741).

facilities to demonstrate compliance with requirements and by facilitating the ability of delegated state, local, tribal, and territorial air agencies and the EPA to assess and determine compliance, and will ultimately reduce burden on regulated facilities, delegated air agencies, and the EPA. Electronic reporting also eliminates paper-based, manual processes, thereby saving time and resources, simplifying data entry, eliminating redundancies, minimizing data reporting errors, and providing data quickly and accurately to the affected facilities, air agencies, the EPA, and the public.

The EPA Web site that stores the submitted electronic data, WebFIRE, is easily accessible and provides a user-friendly interface. By making the records, data, and reports addressed in this rulemaking readily available, the EPA, the regulated community, and the public will benefit when the EPA conducts future CAA-required technology reviews. As a result of having reports readily accessible, our ability to carry out timely comprehensive reviews will be increased.

We anticipate that fewer or less substantial ICRs in conjunction with prospective CAA-required technology reviews may be needed, which results in a decrease in time spent by industry to respond to data collection requests. We also expect the ICRs to contain less extensive stack testing provisions, as we will already have stack test data electronically. Reduced testing requirements would be a cost savings to industry. The EPA should also be able to conduct these required reviews more efficiently. While the regulated community may benefit from a reduced burden of ICRs, the general public benefits from the Agency's ability to provide these required reviews more efficiently, resulting in increased public health and environmental protection.

State, local, and tribal air agencies, as well as the EPA, can benefit from more streamlined and automated review of the electronically submitted data. Standardizing report

formats allows air agencies to review reports and data more quickly. Having reports and associated data in electronic format will facilitate review through the use of software “search” options, as well as the downloading and analyzing of data in spreadsheet format. Additionally, air agencies and the EPA can access reports wherever and whenever they want or need, as long as they have access to the Internet. The ability to access and review air emission report information electronically will assist air agencies to more quickly and accurately determine compliance with the applicable regulations, potentially allowing a faster response to violations which could minimize harmful air emissions. This benefits both air agencies and the general public.

For a more thorough discussion of electronic reporting required by this rule, see the discussion in the preamble of the proposal (81 FR 97079-81). In summary, in addition to supporting regulation development, control strategy development, and other air pollution control activities, having an electronic database populated with performance test data will save industry, air agencies, and the EPA significant time, money, and effort while improving the quality of emission inventories and air quality regulations and enhancing the public’s access to this important information.

IV. What is the rationale for our final decisions and amendments for the subpart MM source category?

For each action, this section provides a description of what we proposed and what we are finalizing, the EPA’s rationale for the final decisions and amendments, and a summary of key comments and responses. A thorough discussion of all comments received on the proposed rulemaking and EPA’s corresponding responses can be found in the comment summary and response document available in the docket (Docket ID No. EPA-HQ-OAR-2014-0741).

A. Residual Risk Review for the Subpart MM Source Category

Results of residual risk review. Pursuant to CAA section 112(f), we conducted a residual risk review and presented the results for the review, along with our proposed decisions regarding risk acceptability and ample margin of safety, in the December 30, 2016, proposed rule for the subpart MM source category (81 FR 97046). The results of the risk assessment are presented briefly in Table 2 of this preamble, and in more detail in a document titled, *Residual Risk Assessment for Pulp Mill Combustion Sources in Support of the October 2017 Risk and Technology Review Final Rule*, available in the docket for this rulemaking (Docket ID No. EPA-HQ-OAR-2014-0741). Based on both actual and allowable emissions for the source category, the estimated maximum individual risk (MIR)³ was 4-in-1 million, with emissions of gaseous organic HAPs acetaldehyde and naphthalene from the BLO process accounting for the majority of the risk. The total estimated national cancer incidence for this source category, based on actual emission levels, was 0.01 excess cancer cases per year, or one case in 100 years. The total estimated national cancer incidence for this source category, based on allowable emission levels, was 0.02 excess cancer cases per year, or one case in 50 years. The estimated maximum chronic non-cancer target organ specific hazard index (TOSHI) value for this source category was 0.3, based on both actual and allowable emissions and driven by acrolein emissions from lime kilns.

Table 2. Pulp Mill Combustion Sources (Subpart MM) Inhalation Risk Assessment Results in the December 2016 Proposal

	Cancer MIR (in-1-Million)		Cancer Incidence (Cases per Year)	Population with Risk of 1-in-1 Million or More	Population with Risk of 10-in-1 Million or More	Max Chronic Non-cancer HI ¹ (Actuals)	Max Chronic Non-cancer HI ¹ (Allowables)
	Based on Actual Emissions	Based on Allowable Emissions					
Source Category	4 (naphthalene, acetaldehyde)	4 (naphthalene, acetaldehyde)	0.01	7,600	0	HI < 1	HI < 1

³ Although defined as “maximum individual risk,” MIR refers only to cancer risk. MIR, one metric for assessing cancer risk, is the estimated risk were an individual exposed to the maximum level of a pollutant for a lifetime.

Whole Facility	20 (arsenic, chromium VI)	--	0.05	440,000	280	HI = 1	HI = 1
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¹ Hazard index.

The multi-pathway screening analysis, based on actual emissions, indicates the excess cancer risk from this source category is less than 10-in-1 million, based on dioxins/furans and polycyclic aromatic hydrocarbon (PAH) emissions, with PAH emissions accounting for 99 percent of these potential risks from the fisher and the farmer scenarios considered for multi-pathway modeling. There were no facilities within this source category with a final multi-pathway non-cancer screen value greater than 1 for cadmium or mercury.

To put the risks from the source category in context, we also evaluated facility-wide risk. Our facility-wide risk assessment, based on actual emissions, estimated the MIR to be 20-in-1 million driven by arsenic and chromium VI emissions, and estimated the chronic non-cancer TOSHI value to be 1, driven by emissions of acrolein. We estimated approximately 440,000 people to have cancer risks greater than or equal to 1-in-1 million considering facility-wide emissions from the pulp and paper production source category (see Table 2). The facility-wide cancer and non-cancer risks are driven by emissions from industrial boilers, representing 62 percent of the cancer risks and 95 percent of the non-cancer risks. Emissions from 40 CFR part 63, subpart MM sources represent only 6 percent of the total facility-wide cancer risk of 20-in-1 million.

The screening assessment of worst-case acute inhalation impacts indicates no pollutants exceeding a hazard quotient (HQ) value of 1 based on the reference exposure level (REL), with an estimated worst-case maximum acute HQ of 0.3 for acrolein based on the 1-hour REL.

A review of the uncertainties in the risk assessment identified one additional key consideration, and that is the quality of data associated with the facility-wide emissions. The data

provided from the power boilers (*i.e.*, sources covered under Boiler MACT, 40 CFR part 63, subpart DDDDD) were collected in 2009 and represent pre-MACT emissions before any controls were implemented. The uncertainty introduced by using pre-MACT boiler emissions data may result in an overestimated risk estimate for the facility-wide analysis for both cancer and non-cancer impacts.

We weighed all health risk factors in our risk acceptability determination, and we proposed that the residual risks from this source category are acceptable. We then considered whether the NESHAP provides an ample margin of safety to protect public health and whether more stringent standards were necessary to prevent an adverse environmental effect by taking into consideration costs, energy, safety, and other relevant factors. In determining whether the standards provide an ample margin of safety to protect public health, we examined the same risk factors that we investigated for our acceptability determination and also considered the costs, technological feasibility, and other relevant factors related to emissions control options that might reduce risk associated with emissions from the source category. As noted in the discussion of the ample margin of safety analysis in the preamble to the proposed rule (81 FR 97069-70), we considered options for further reducing gaseous organic HAP emissions from recovery furnace systems. We considered the reduction in HAP emissions that could be achieved by converting or replacing direct contact evaporator (DCE) recovery furnaces (which include BLO systems) with NDCE recovery furnaces. We also considered conversion of wet ESP systems to dry ESP systems for NDCE recovery furnaces. The overall cost of these options is an estimated \$1.4 billion to \$3.7 billion in capital cost and \$120 million to \$440 million in annualized cost. Application of these options would achieve an estimated emission reduction of 2,920 tpy of gaseous organic HAPs (including risk drivers and other gaseous organic HAPs), with a

corresponding cost effectiveness of \$45,000 to \$153,000 per ton of emissions reduced. Due to the low level of current risk and the costs associated with these options, we proposed that additional HAP emission reductions from the source category are not necessary to provide an ample margin of safety. Based on the results of our environmental risk screening assessment,⁴ we also proposed that more stringent standards are not necessary to prevent an adverse environmental effect.

Public comments and final approach. Most of the commenters providing input on the proposed risk review supported our determination of risk acceptability and ample margin of safety analysis for 40 CFR part 63, subpart MM.

We evaluated all of the comments on EPA's risk review and determined that no changes to the review are needed. A summary of these comments and our responses is located in the comment summary and response document, available in the docket for this action (Docket ID No. EPA-HQ-OAR-2014-0741).

For the reasons explained in the proposed rule, we determined that the risks from the 40 CFR part 63, subpart MM source category are acceptable, and the current standards provide an ample margin of safety to protect public health and prevent an adverse environmental effect. Since proposal, neither the risk assessment nor our determinations regarding risk acceptability, ample margin of safety or adverse environmental effects have changed. Therefore, pursuant to CAA section 112(f)(2), we are finalizing our residual risk review as proposed.

B. Technology Review for the Subpart MM Source Category

⁴ The environmental screening analysis is documented in *Residual Risk Assessment for Pulp Mill Combustion Sources in Support of the October 2017 Risk and Technology Review Final Rule*, available in the docket for this action (Docket ID No. EPA-HQ-OAR-2014-0741).

Pursuant to CAA section 112(d)(6), we conducted a technology review, which focused on identifying and evaluating developments in practices, processes, and control technologies for the emission sources in the source category. The following paragraphs discuss what we proposed pursuant to CAA section 112(d)(6), changes to the technology review since proposal, the key comments we received on the technology review and our responses, and the rationale for our final approach for the technology review. For an in-depth account of the comments and responses, see the comment summary and response document in the docket for this action (Docket ID No. EPA-HQ-OAR-2014-0741).

Emissions standards. At proposal, we focused our CAA section 112(d)(6) review of 40 CFR part 63, subpart MM on the emissions standards currently established in subpart MM. No cost-effective developments in practices, processes, or control technologies were identified in our technology review to warrant revisions to the gaseous organic HAP standards for recovery furnaces and semichemical combustion units, or to the HAP metal standards for recovery furnaces, lime kilns, SDTs, and sulfite combustion units. More information concerning our technology review is in the memorandum titled, *Section 112(d)(6) Technology Review for the NESHAP for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills*, available in the docket for this action (Docket ID No. EPA-HQ-OAR-2014-0741), and in the preamble to the proposed rule (81 FR 97070-75).

Multiple commenters concurred with the EPA that the results of the technology review supported the conclusion that there should be no changes to the emissions standards. One commenter objected and argued that the current MACT standards for HAP metals from recovery furnaces, SDTs, lime kilns, and sulfite combustion units did not meet the requirements of CAA section 112(d)(2) and (3) when originally promulgated. The commenter stated that each of the

emissions standards must receive a proper CAA section 112(d)(6) review to evaluate whether there is an emissions standard in place that met the CAA section 112(d)(2) and (3) test.

According to the commenter, the EPA must set emissions standards on each of these emission units to satisfy the CAA, by establishing a proper floor for the first time, and performing a beyond-the-floor analysis. The commenter argued that the EPA is not authorized by CAA section 112(d)(6) to leave in place errors made when performing the originally-required MACT rulemaking under CAA section 112(d)(2) and (3).

In addition to commenting on the current 40 CFR part 63, subpart MM standards, commenters offered opposing opinions regarding whether the EPA should have expanded the scope of sources and/or pollutants covered by subpart MM as part of the technology review. One commenter argued that the EPA has no obligation to expand the scope of the existing standards, and does not in fact have statutory authority to do so. The commenter stated that there is neither legal nor technical justification for considering limitations for new pollutants or for new sources as part of the CAA section 112(d)(6) review of the subpart MM standards. The commenter also stated that the EPA's residual risk review, which included the major processes and pollutants, did not identify any reason for expanding the emission units covered or the pollutants limited in the subpart MM standards.

Another commenter argued that the EPA must set emissions standards for all emitted HAPs from all emission units. The commenter stated that, currently, there are uncontrolled HAPs emitted by pulp mills, including mercury, dioxins/furans, and hydrochloric acid. The commenter also stated that the gaseous organic HAPs emitted from existing recovery furnaces and from new and existing lime kilns and SDTs have no applicable emission limit. The commenter also noted that the EPA failed to set any standard for HAP metals emissions from new and existing

chemical recovery combustion units at stand-alone semichemical pulp mills. The commenter indicated that the CAA section 112(d)(6) review has brought the problem of currently unregulated HAPs to the EPA's attention, and it is now "necessary" under CAA section 112(d)(6) to set emissions standards that control these pollutants, as the CAA directs. The commenter also asserted that, under CAA section 112(d)(6), the D.C. Circuit Court legal decisions governing the EPA's regulatory responsibility are "developments" that define proper pollution controls, practices, and technologies, and the EPA is legally required to account for them and set standards to limit these pollutants in the review rulemaking.

Regarding our review of the current 40 CFR part 63, subpart MM standards, we disagree with the commenter that implied the EPA must recalculate or reanalyze the validity of MACT floors previously established under CAA sections 112(d)(2) and (3) as part of the technology review under CAA section 112(d)(6). As explained in prior RTR rulemakings, the EPA does not read CAA section 112(d)(6) as requiring a reanalysis or recalculation of MACT floors. *See* National Emissions Standards for Coke Oven Batteries (70 FR 19992, 20008 (April 15, 2005)). We read CAA section 112(d)(6) as providing the EPA with substantial latitude in weighing a variety of factors and arriving at an appropriate balance in considering revisions to standards promulgated under CAA section 112(d)(2) and (3). Nothing in CAA section 112(d)(6) expressly or implicitly requires that the EPA recalculate the MACT floor as part of the CAA section 112(d)(6) review. The EPA's interpretation on this point has been upheld by the D.C. Circuit. *Nat'l Ass'n for Surface Finishing v. EPA*, 795 F.3d 1, 7-9 (D.C. Cir. 2015); *Ass'n of Battery Recyclers v. EPA*, 716 F. 3d 667, 673 (D.C. Cir. 2013); *Natural Resources Defense Council (NRDC) v. EPA*, 529 F.3d 1077, 1084 (D.C. Cir. 2008). Further, CAA section 112(d)(6) provides that the "developments" the EPA must take into account when conducting technology reviews

are specifically “developments in practices, processes, and control technologies.” See 81 FR 79066 (December 30, 2016) (describing the developments the EPA considers when conducting CAA section 112(d)(6) reviews). The EPA interprets the term “developments” to include technological improvements that could result in significant additional emission reduction as well as wholly new methods of emission reduction. *See, e.g.*, 75 FR 65083; *see also Nat’l Ass’n Surface Finishing v. EPA*, 795 F.3d 1, 11 (D.C. Cir. 2015) (upholding the EPA’s conclusion that developments include changes that indicate that a previously considered option for reducing emissions may now be cost-effective or technologically feasible and concluding that it is sufficient for the EPA “to assess and discuss the collective impact of the developments it has identified, and to revise standards appropriately in light thereof.”). The EPA does not, however, interpret the term “development” as used in CAA section 112(d)(6) to include intervening case law. An intervening decision by a court regarding other CAA section 112 requirements does not constitute a development in a practice, process or control technology. As such, the EPA has no obligation to consider intervening case law as a “development” when identifying developments for purposes of the section 112(d)(6) review.

Regarding the scope of the subpart MM technology review, the EPA acknowledges that standards for certain combinations of pollutants and processes in the subpart MM source category have not been promulgated according to CAA section 112(d)(2) and (3). We agree that the EPA does not have any obligation to expand the scope of the existing standards under CAA section 112(d)(6), and we do not look to CAA section 112(d)(6) for authority to set additional standards within a source category. The authority to set additional standards within a source category comes from CAA section 112(d)(2) and (3). Though the EPA has discretion to develop standards under CAA section 112(d)(2) and (3) for previously unregulated pollutants at the same

time as the Agency completes the CAA section 112(d)(6) review, nothing in CAA section 112(d)(6) expressly requires the EPA to do so as part of that review. The compressed schedule for this rulemaking, due to the court-ordered deadline, did not make it reasonable to appropriately evaluate new standards for unregulated pollutants and processes. This issue is discussed further in the comment summary and response document that is available in the docket. The EPA is not taking any action at this time with respect to the unregulated pollutants or processes, though the EPA might choose to do so in the future after assembling the data and information needed to conduct the CAA section 112(d)(2) and (3) analyses.

Continuous opacity monitoring. Based on our analysis of continuous opacity monitoring system (COMS) data for kraft and soda recovery furnaces and lime kilns equipped with ESPs⁵ and our consideration of the costs and impacts of various opacity monitoring options for these sources,⁶ we stated at proposal that:

- There had been a development in existing recovery furnace operating practices that supported reducing the existing source opacity limit from 35 percent to 20 percent and revising the monitoring allowance for the 20 percent opacity limit from 6 percent to a 2 percent monitoring allowance as part of the subpart MM technology review process; and
- There had been a development in existing lime kiln operating practices that supported revising the monitoring allowance from 6 percent to a 1 percent monitoring allowance for opacity as part of the subpart MM technology review process.

The estimated cost effectiveness of the proposed recovery furnace option, \$36,800 per ton PM, was within the range of other recent EPA regulations. There was no cost-effectiveness

⁵ See the memorandum in the docket titled, *Review of the Continuous Opacity Monitoring Data from the Pulp and Paper ICR Responses for Subpart MM Sources*.

⁶ See the memorandum in the docket titled, *Costs/Impacts of the Subpart MM Residual Risk and Technology Review*.

value for the proposed lime kiln option because there were no estimated incremental HAP reductions (81 FR 97072-73).

Multiple commenters objected to the proposed changes to the opacity requirements for recovery furnaces and lime kilns, questioning the cost effectiveness and stating that the technology review should not result in changing the opacity requirements. The commenters argued that the EPA's assumption for "improving maintenance" to reduce the number of exceedances of the recovery furnace and lime kiln opacity limits was incorrect, and stated that facilities would incur emission unit shutdown (and resulting lost production) and potential capital costs in order to meet the reduced opacity limits and monitoring allowances. Commenters stated that facilities would need to make ESP upgrades to meet the proposed limits and they provided cost estimates for these upgrades, based on their experiences. In response to these comments, we conducted further analysis, based on the assumption that ESP upgrades (but not maintenance) would be needed to meet the proposed standard and revised the cost estimates considering the cost data provided.⁷ In this further analysis considering new information, we estimated costs that are significantly higher than what we estimated at proposal. For recovery furnaces, we estimated annual ESP upgrade costs of \$21 million v. \$8.7 million at proposal; for lime kilns, we estimated annual ESP upgrade costs of \$0.87 million v. \$0.068 million at proposal. For PM, the surrogate for HAP metals, we estimated the cost effectiveness for recovery furnace ESP upgrades to increase from \$36,800 to \$91,400 per ton. For HAP metals specifically, the cost effectiveness exceeds \$250 million per ton.

Commenters also stated that examination of only 1 year of COMS data for 2009 from the 2011 pulp and paper ICR was not adequate to fully determine the impacts of the proposed

⁷ See the memorandum in the docket titled, *Revised Costs/Impacts of the Subpart MM Residual Risk and Technology Review for Promulgation*.

change or to demonstrate that there has been a change in operating practice. Commenters further stated that the COMS data for recovery furnaces and lime kilns that the EPA used in its analysis did not include periods of startup and shutdown in all instances, and that the EPA's analysis of existing performance relative to the proposed opacity limits and monitoring allowances was, therefore, incomplete. The EPA acknowledges that 2009 data may not be representative of current operation, as suggested by the commenters, and that the number of startup and shutdown events likely vary from year to year. Considering this information and the analyses performed for the final action,⁸ we are not finalizing the recovery furnace and lime kiln opacity requirements as proposed. Instead, we are finalizing an opacity limit of 35 percent for existing recovery furnaces, with a corrective action level of 20 percent and a 2 percent monitoring allowance. A 2 percent monitoring allowance reflects improvements in operating practices from the previous 6 percent allowance, but allows sufficient flexibility for periods of startup and shutdown. We are finalizing, as proposed, an opacity limit of 20 percent for new recovery furnaces, with a corrective action level of 20 percent and a 2 percent monitoring allowance. For lime kilns, we are finalizing an opacity limit of 20 percent, with a 3 percent monitoring allowance. A 3 percent monitoring allowance reflects improvements in operating practices from the previous 6 percent allowance, but allows sufficient flexibility for periods of startup and shutdown as compared to the proposed 1 percent allowance. Our review of available COMS data indicates that all recovery furnaces and lime kilns equipped with ESPs can meet these limits, so we do not expect any costs

⁸ *Id.*

associated with these requirements, which addresses commenters' concerns about the cost of the proposed opacity options.⁹

ESP parameter monitoring. We proposed an ESP parameter monitoring requirement for recovery furnaces and lime kilns equipped with ESPs. We proposed that these sources monitor the secondary voltage and secondary current (or, alternatively, total secondary power) of each ESP collection field. These proposed ESP parameter monitoring requirements were in addition to opacity monitoring for recovery furnaces equipped with ESPs alone. The purpose of this proposed requirement was to provide an additional indicator of ESP performance and enable affected sources to show continuous compliance with the HAP metal standards (surrogate PM emission limits) at all times, including periods when the opacity monitoring allowance is used (81 FR 97073). For example, these requirements were proposed to provide an indicator that the ESP was efficiently operated and properly maintained for the duration of the semiannual reporting period, including during periods of startup and shutdown. At the time of the proposed rule, we estimated that the nationwide costs associated with adding the proposed ESP parameter monitoring requirements would be \$5.7 million capital and \$1.4 million annualized for ESP parameter monitors, and that all mills with ESP-controlled recovery furnaces and lime kilns would be impacted (81 FR 97073).

Multiple commenters stated that the ESP total power monitoring provisions should be removed or revised. Instead of adding an additional monitoring requirement that they believed would be burdensome and duplicative of the opacity monitoring already being conducted, commenters suggested that the EPA should instead require proper operation of the ESP's AVC

⁹ See the memoranda in the docket titled, *Addendum to the Review of the Continuous Opacity Monitoring Data from the Pulp and Paper ICR Responses for Subpart MM Sources*, and *Revised Costs/Impacts of the Subpart MM Residual Risk and Technology Review for Promulgation*.

or power management system, which would achieve the same goal of ensuring the ESP performance. Commenters provided information suggesting that we underestimated the ESP parameter monitoring costs, specifically that EPA incorrectly assumed that all ESPs were equipped with the ability to record the parameters. Based on our review of this cost information, we conducted a reanalysis and estimated revised costs of \$16 million in capital costs and \$4 million in annualized costs associated with adding ESP parameter monitoring for existing sources.¹⁰

Given that the intent of the proposed additional ESP monitoring was to ensure efficient operation and proper maintenance of the ESP, see 81 FR 97073 (December 30, 2016), and that commenters suggested that the use of the AVC ensures efficient operation and notifies operators of issues requiring maintenance, and that the costs were significantly higher than EPA estimated at proposal, we are not finalizing the proposed ESP parameter monitoring requirements. The EPA is instead finalizing a requirement for recovery furnaces and lime kilns equipped with ESPs to maintain proper operation of the ESP's AVC. This requirement applies at all times, including times when the opacity monitoring allowance is used. Because existing ESPs already have AVC, there is no need to estimate equipment cost. We have only estimated recordkeeping costs for this requirement.¹¹ The final rule also clarifies that the requirement to maintain proper operation of the ESP's AVC does not apply to recovery furnaces and lime kilns subject to the 40 CFR part 60, subpart BBa New Source Performance Standards (NSPS) for Kraft Pulp Mills, because the NSPS requires ESP parameter monitoring for these units.

¹⁰ See the memorandum in the docket titled, *Revised Costs/Impacts of the Subpart MM Residual Risk and Technology Review for Promulgation*.

¹¹ *Id.*

Monitoring of ESPs followed by wet scrubbers. Because moisture in wet stacks interferes with opacity readings, opacity is not a suitable monitoring requirement for recovery furnaces or lime kilns with wet scrubber stacks. Therefore, we proposed to require ESP and wet scrubber parameter monitoring for emission units equipped with an ESP followed by a wet scrubber. The ESP parameters proposed to be monitored were secondary voltage and secondary current (or, alternatively, total secondary power), and the wet scrubber parameters were pressure drop and scrubber liquid flow rate (81 FR 97073-74). As noted in the previous paragraph, for the final rule, we are replacing the proposed ESP parameter monitoring requirement with a requirement to maintain proper operation of the ESP's AVC based on public comment, except for recovery furnaces and lime kilns subject to the subpart BBa NSPS, because ESP parameter monitoring is already required for these units. We are finalizing the rest of these monitoring requirements as proposed.

Wet scrubber parameter monitoring. Subpart MM of 40 CFR part 63 specifies monitoring of scrubber liquid flow rate and pressure drop for kraft and soda SDTs and sulfite combustion units equipped with wet scrubbers. Facilities may have difficulty meeting the minimum pressure drop requirement during startup and shutdown, as expected due to the reduced (and changing) volumetric flow of stack gases during these periods. We proposed revising the monitoring requirements to address startup and shutdown periods when certain parameters could be difficult to achieve. Specifically, we proposed to consider only scrubber liquid flow rate during these periods (*i.e.*, excess emissions would include any 3-hour period when black liquor solids (BLS) are fired that the scrubber flow rate does not meet the minimum parameter limits set in the initial performance test). Based on previous alternative monitoring requests for SDTs, we also proposed to allow operators to use SDT scrubber fan amperage as an

alternative to pressure drop measurement for SDT dynamic scrubbers operating at ambient pressure or for low-energy entrainment scrubbers on SDTs where the fan speed does not vary (81 FR 97074-75). We received no public comments on the proposed changes in wet scrubber parameter monitoring and, therefore, are finalizing these monitoring requirements as proposed.

C. Changes to SSM Provisions

We received several comments on our proposal to remove exemptions for SSM events. See the comment summary and response document available in the docket for this action (Docket ID No. EPA-HQ-OAR-2014-0741) for public comments and our responses relating to our proposal to remove the SSM exemption from 40 CFR part 63, subpart MM. An overview of our rationale for removing this exemption is provided below.

In its 2008 decision in *Sierra Club v. EPA*, 551 F.3d 1019 (D.C. Cir. 2008), the United States Court of Appeals for the District of Columbia Circuit vacated portions of two provisions in the EPA's CAA section 112 regulations governing the emissions of HAP during periods of SSM. Specifically, the Court vacated the SSM exemption contained in 40 CFR 63.6(f)(1) and 40 CFR 63.6(h)(1), holding that under section 302(k) of the CAA, emissions standards or limitations must be continuous in nature and that the SSM exemption violates the CAA's requirement that some CAA section 112 standards apply continuously.

We have eliminated the SSM exemption in this rule. Consistent with *Sierra Club v. EPA*, the EPA has established standards in this rule that apply at all times. We have also revised Table 1 (the General Provisions applicability table) in several respects as is explained in more detail below. For example, we have eliminated the incorporation of the General Provisions' requirement that the source develop an SSM plan. We have also eliminated and revised certain

recordkeeping and reporting that is related to the SSM exemption as described in detail in the proposed rule and summarized again here.

In establishing the standards in this rule, the EPA has taken into account startup and shutdown periods and, for the reasons explained below, has not established alternate emissions standards for those periods.

Periods of startup, normal operations, and shutdown are all predictable and routine aspects of a source's operations. Malfunctions, in contrast, are neither predictable nor routine. Instead they are, by definition, sudden, infrequent and not reasonably preventable failures of emissions control, process or monitoring equipment (40 CFR 63.2) (definition of malfunction). The EPA interprets CAA section 112 as not requiring emissions that occur during periods of malfunction to be factored into development of CAA section 112 standards and this reading has been upheld as reasonable by the D.C. Circuit in *U.S. Sugar Corp. v. EPA*, 830 F.3d 579, 606-610 (2016). Under CAA section 112, emissions standards for new sources must be no less stringent than the level "achieved" by the best controlled similar source, and for existing sources, generally must be no less stringent than the average emission limitation "achieved" by the best performing 12 percent of sources in the category. There is nothing in CAA section 112 that directs the Agency to consider malfunctions in determining the level "achieved" by the best performing sources when setting emissions standards. As the D.C. Circuit has recognized, the phrase "average emissions limitation achieved by the best performing 12 percent of" sources "says nothing about how the performance of the best units is to be calculated." *Nat'l Ass'n of Clean Water Agencies v. EPA*, 734 F.3d 1115, 1141 (D.C. Cir. 2013). While the EPA accounts for variability in setting emissions standards, nothing in CAA section 112 requires the Agency to consider malfunctions as part of that analysis. A malfunction should not be treated in the same

manner as the type of variation in performance that occurs during routine operations of a source. A malfunction is a failure of the source to perform in a “normal or usual manner” and no statutory language compels the EPA to consider such events in setting CAA section 112 standards.

As the D.C. Circuit recognized in *U.S. Sugar Corp.*, accounting for malfunctions in setting emissions standards would be difficult, if not impossible, given the myriad different types of malfunctions that can occur across all sources in the category and given the difficulties associated with predicting or accounting for the frequency, degree, and duration of various malfunctions that might occur. *Id.* at 608 (“the EPA would have to conceive of a standard that could apply equally to the wide range of possible boiler malfunctions, ranging from an explosion to minor mechanical defects. Any possible standard is likely to be hopelessly generic to govern such a wide array of circumstances.”) As such, the performance of units that are malfunctioning is not “reasonably” foreseeable. *See, e.g., Sierra Club v. EPA*, 167 F.3d 658, 662 (D.C. Cir. 1999) (“The EPA typically has wide latitude in determining the extent of data-gathering necessary to solve a problem. We generally defer to an agency's decision to proceed on the basis of imperfect scientific information, rather than to ‘invest the resources to conduct the perfect study.’”) *See also, Weyerhaeuser v. Costle*, 590 F.2d 1011, 1058 (D.C. Cir. 1978) (“In the nature of things, no general limit, individual permit, or even any upset provision can anticipate all upset situations. After a certain point, the transgression of regulatory limits caused by ‘uncontrollable acts of third parties,’ such as strikes, sabotage, operator intoxication or insanity, and a variety of other eventualities, must be a matter for the administrative exercise of case-by-case enforcement discretion, not for specification in advance by regulation.”). In addition, emissions during a malfunction event can be significantly higher than emissions at any other time of source

operation. For example, if an air pollution control device with 99 percent removal goes off-line as a result of a malfunction (as might happen if, for example, the bags in a baghouse catch fire) and the emission unit is a steady state type unit that would take days to shut down, the source would go from 99 percent control to zero control until the control device was repaired. The source's emissions during the malfunction would be 100 times higher than during normal operations. As such, the emissions over a 4-day malfunction period would exceed the annual emissions of the source during normal operations. As this example illustrates, accounting for malfunctions could lead to standards that are not reflective of (and significantly less stringent than) levels that are achieved by a well-performing non-malfunctioning source. It is reasonable to interpret CAA section 112 to avoid such a result. The EPA's approach to malfunctions is consistent with CAA section 112 and is a reasonable interpretation of the statute.

In the event that a source fails to comply with the applicable CAA section 112(d) standards as a result of a malfunction event, the EPA would determine an appropriate response based on, among other things, the good faith efforts of the source to minimize emissions during malfunction periods, including preventative and corrective actions, as well as root cause analyses to ascertain and rectify excess emissions. The EPA would also consider whether the source's failure to comply with the CAA section 112(d) standard was, in fact, sudden, infrequent, not reasonably preventable, and was not instead caused in part by poor maintenance or careless operation. 40 CFR 63.2 (definition of malfunction).

If the EPA determines in a particular case that an enforcement action against a source for violation of an emissions standard is warranted, the source can raise any and all defenses in that enforcement action and the federal district court will determine what, if any, relief is appropriate. The same is true for citizen enforcement actions. Similarly, the presiding officer in an

administrative proceeding can consider any defense raised and determine whether administrative penalties are appropriate.

In summary, the EPA interpretation of the CAA and, in particular, CAA section 112 is reasonable and encourages practices that will avoid malfunctions. Administrative and judicial procedures for addressing exceedances of the standards fully recognize that violations may occur despite good faith efforts to comply and can accommodate those situations. *U.S. Sugar Corp. v. EPA*, 830 F.3d 579, 606-610 (2016).

40 CFR 63.860(d) General duty. We are revising the General Provisions table (Table 1) entry for 40 CFR 63.6(e) by re-designating it as 40 CFR 63.6(e)(1)(i) and changing the “yes” in column 3 to a “no.” Section 63.6(e)(1)(i) describes the general duty to minimize emissions. Some of the language in that section is no longer necessary or appropriate in light of the elimination of the SSM exemption. We are instead adding general duty regulatory text at 40 CFR 63.860(d) that reflects the general duty to minimize emissions while eliminating the reference to periods covered by an SSM exemption. The current language in 40 CFR 63.6(e)(1)(i) characterizes what the general duty entails during periods of SSM. With the elimination of the SSM exemption, there is no need to differentiate between normal operations, startup and shutdown, and malfunction events in describing the general duty. Therefore, the language the EPA is promulgating for 40 CFR 63.860(d) does not include that language from 40 CFR 63.6(e)(1).

We are also revising the General Provisions table (Table 1) to add an entry for 40 CFR 63.6(e)(1)(ii) and include a “no” in column 3. Section 63.6(e)(1)(ii) imposes requirements that are not necessary with the elimination of the SSM exemption or are redundant with the general duty requirement being added at 40 CFR 63.860(d).

SSM plan. We are revising the General Provisions table (Table 1) to add an entry for 40 CFR 63.6(e)(3) and include a “no” in column 3. Generally, these paragraphs require development of an SSM plan and specify SSM recordkeeping and reporting requirements related to the SSM plan. As noted, the EPA is removing the SSM exemptions. Therefore, affected units will be subject to an emissions standard during such events. The applicability of a standard during such events will ensure that sources have ample incentive to plan for and achieve compliance and, thus, the SSM plan requirements are no longer necessary.

Compliance with standards. We are revising the General Provisions table (Table 1) entry for 40 CFR 63.6(f) by re-designating this section as 40 CFR 63.6(f)(1) and including a “no” in column 3. The current language of 40 CFR 63.6(f)(1) exempts sources from non-opacity standards during periods of SSM. As discussed above, the Court in *Sierra Club* vacated the exemptions contained in this provision and held that the CAA requires that some CAA section 112 standard apply continuously. Consistent with *Sierra Club*, the EPA is revising standards in this rule to apply at all times.

We are revising the General Provisions table (Table 1) entry for 40 CFR 63.6(h) by re-designating this section as 40 CFR 63.6(h)(1) and including a “no” in column 3. The current language of 40 CFR 63.6(h)(1) exempts sources from opacity standards during periods of SSM. As discussed above, the Court in *Sierra Club* vacated the exemptions contained in this provision and held that the CAA requires that some CAA section 112 standard apply continuously. Consistent with *Sierra Club*, the EPA is revising standards in this rule to apply at all times.

40 CFR 63.865 Performance test requirements and test methods. We are revising the General Provisions table (Table 1) entry for 40 CFR 63.7(e) by re-designating it as 40 CFR 63.7(e)(1) and including a “no” in column 3. Section 63.7(e)(1) describes performance testing

requirements. The EPA is instead adding a performance testing requirement at 40 CFR 63.865. The performance testing requirements we are adding differ from the General Provisions performance testing provisions in several respects. The regulatory text does not include the language in 40 CFR 63.7(e)(1) that restated the SSM exemption and language that precluded startup and shutdown periods from being considered “representative” for purposes of performance testing. The revised performance testing provisions require testing under representative operating conditions, excluding periods of startup and shutdown. As in 40 CFR 63.7(e)(1), performance tests conducted under this subpart should not be conducted during malfunctions because conditions during malfunctions are often not representative of normal operating conditions. The EPA is adding language that requires the owner or operator to record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation. Section 63.7(e) requires that the owner or operator make available records “as may be necessary to determine the condition of the performance test” to the Administrator upon request, but does not specifically require the information to be recorded. The regulatory text the EPA is adding to this provision builds on that requirement and makes explicit the requirement to record the information.

40 CFR 63.864 Monitoring requirements. We are revising the General Provisions table (Table 1) by re-designating 40 CFR 63.8(c) as 40 CFR 63.8(c)(1), adding entries for 40 CFR 63.8(c)(1)(i) through (iii) and including “no” in column 3 for paragraphs (i) and (iii). The cross-references to the general duty and SSM plan requirements in those subparagraphs are not necessary in light of other requirements of 40 CFR 63.8 that require good air pollution control

practices (40 CFR 63.8(c)(1)) and that set out the requirements of a quality control program for monitoring equipment (40 CFR 63.8(d)).

We are revising the General Provisions table (Table 1) by adding an entry for 40 CFR 63.8(d)(3) and including a “no” in column 3. The final sentence in 40 CFR 63.8(d)(3) refers to the General Provisions’ SSM plan requirement which is no longer applicable. The EPA is adding to the rule at 40 CFR 63.864(f) text that is identical to 40 CFR 63.8(d)(3) except that the final sentence is replaced with the following sentence: “The program of corrective action should be included in the plan required under 40 CFR 63.8(d)(2).”

40 CFR 63.866 Recordkeeping requirements. We are revising the General Provisions table (Table 1) by adding an entry for 40 CFR 63.10(b)(2)(i) and including a “no” in column 3. Section 63.10(b)(2)(i) describes the recordkeeping requirements during startup and shutdown. These recording provisions are no longer necessary because the EPA is promulgating that recordkeeping and reporting applicable to normal operations applies to startup and shutdown. In the absence of special provisions applicable to startup and shutdown, such as a startup and shutdown plan, there is no reason to retain additional recordkeeping for startup and shutdown periods.

We are revising the General Provisions table (Table 1) by adding an entry for 40 CFR 63.10(b)(2)(ii) and including a “no” in column 3. Section 63.10(b)(2)(ii) describes the recordkeeping requirements during a malfunction. The EPA is adding such requirements to 40 CFR 63.866(d). The regulatory text we are adding differs from the General Provisions it is replacing in that the General Provisions requires the creation and retention of a record of the occurrence and duration of each malfunction of process, air pollution control, and monitoring equipment. The EPA is applying the requirement to any failure to meet an applicable standard

and is requiring that the source record the date, time, and duration of the failure rather than the “occurrence.” The EPA is also adding to 40 CFR 63.866(d) a requirement that sources keep records that include a list of the affected source or equipment and actions taken to minimize emissions, an estimate of the quantity of each regulated pollutant emitted over any emission limit the source failed to meet, and a description of the method used to estimate the emissions. Examples of such methods could include mass balance calculations, measurements when available, or engineering judgment based on known process parameters. The EPA is requiring that sources keep records of this information to ensure that there is adequate information to allow the EPA to determine the severity of any failure to meet a standard, and to provide data that may document how the source met the general duty to minimize emissions when the source has failed to meet an applicable standard.

We are revising the General Provisions table (Table 1) by adding an entry for 40 CFR 63.10(b)(2)(iv) and including a “no” in column 3. When applicable, the provision requires sources to record actions taken during SSM events when actions were inconsistent with their SSM plan. The requirement is no longer appropriate because SSM plans will no longer be required. The requirement previously applicable under 40 CFR 63.10(b)(2)(iv)(B) to record actions to minimize emissions and record corrective actions is now applicable by reference to 40 CFR 63.866(d).

We are revising the General Provisions table (Table 1) by adding an entry for 40 CFR 63.10(b)(2)(v) and including a “no” in column 3. When applicable, the provision requires sources to record actions taken during SSM events to show that actions taken were consistent with their SSM plan. The requirement is no longer appropriate because SSM plans will no longer be required.

We are revising the General Provisions table (Table 1) by adding an entry for 40 CFR 63.10(c)(15) and including a “no” in column 3. The EPA is promulgating that 40 CFR 63.10(c)(15) no longer applies. When applicable, the provision allows an owner or operator to use the affected source’s SSM plan or records kept to satisfy the recordkeeping requirements of the SSM plan, specified in 40 CFR 63.6(e), to also satisfy the requirements of 40 CFR 63.10(c)(10) through (12). The EPA is eliminating this requirement because SSM plans will no longer be required, and, therefore, 40 CFR 63.10(c)(15) no longer serves any useful purpose for affected units.

40 CFR 63.867 Reporting requirements. We are revising the General Provisions table (Table 1) entry for 40 CFR 63.10(d)(5) by re-designating it as 40 CFR 63.10(d)(5)(i) and changing the “yes” in column 3 to a “no.” Section 63.10(d)(5)(i) describes the periodic reporting requirements for startups, shutdowns, and malfunctions. To replace the General Provisions reporting requirement, the EPA is adding reporting requirements to 40 CFR 63.867(c). The replacement language differs from the General Provisions requirement in that it eliminates periodic SSM reports as a stand-alone report. We are promulgating language that requires sources that fail to meet an applicable standard at any time to report the information concerning such events in the semiannual report already required under this rule. We are promulgating that the report must contain the number, date, time, duration, and the cause of such events (including unknown cause, if applicable), a list of the affected source or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit, and a description of the method used to estimate the emissions.

We will no longer require owners or operators to determine whether actions taken to correct a malfunction are consistent with an SSM plan, because plans will no longer be required.

The final amendments, therefore, eliminate the cross reference to 40 CFR 63.10(d)(5)(i) that contains the description of the previously required SSM report format and submittal schedule from this section. These specifications are no longer necessary because the events will be reported in otherwise required reports with similar format and submittal requirements.

We are revising the General Provisions table (Table 1) to add an entry for 40 CFR 63.10(d)(5)(ii) and include a “no” in column 3. Section 63.10(d)(5)(ii) describes an immediate report for startups, shutdown, and malfunctions when a source failed to meet an applicable standard, but did not follow the SSM plan. We will no longer require owners and operators to report when actions taken during a startup, shutdown, or malfunction were not consistent with an SSM plan, because plans will no longer be required.

D. Emissions Testing

Periodic testing. As part of an ongoing effort to improve compliance with various federal air emission regulations, we reviewed the 40 CFR part 63, subpart MM emissions testing and monitoring requirements and proposed to require periodic emissions testing every 5 years. We proposed that the first of the periodic performance tests be conducted within 3 years of the effective date of the revised standards and, thereafter, before the facilities renew their 40 CFR part 70 operating permits, but no longer than 5 years following the previous performance test. The proposal required periodic filterable PM testing for existing and new kraft and soda recovery furnaces, SDTs, and lime kilns and sulfite combustion units; periodic methanol testing for new kraft and soda recovery furnaces; and periodic total hydrocarbon (THC) testing for existing and new semichemical combustion units (81 FR 97078).

Multiple commenters expressed concern about the proposed requirement for facilities to conduct periodic tests “before renewing their 40 CFR part 70 operating permit,” arguing that the

phrase was confusing and unnecessary, and they recommended that the wording linking periodic testing to permit renewal should be struck. We have reviewed these comments and agree that tying the timing for periodic testing to title V permit renewal could be considered confusing and could unnecessarily complicate the rule. Therefore, we are finalizing (as proposed) the requirement to conduct the first of the periodic tests within 3 years of the effective date of the revised standards and, thereafter, no longer than 5 years following the previous test, without reference to permit renewal. For more information, see the comment summary and response document available in the docket for this action (Docket ID No. EPA-HQ-OAR-2014-0741).¹²

Test conditions. We also proposed to revise the performance test requirements to specify that “performance tests shall be conducted under such conditions as the Administrator specifies to the owner or operator based on representative performance of the affected source for the period being tested” (81 FR 97081). The proposed rule language was included in 40 CFR part 63, subpart MM as a replacement for similar language in 40 CFR 63.7(e)(1) that is no longer entirely applicable because it stated that periods of SSM would not be considered a violation.

A commenter objected to the proposed language, stating that, depending on what “conditions” the Administrator specifies, it may be impossible to conduct performance testing in the time frame required, while simultaneously meeting all the conditions the Administrator or their designee may specify. The commenter suggested that the rule should simply require that performance tests be conducted under normal operating conditions. We agree that the proposed rule language needs clarification and have revised the language for the final rule to refer to “normal operating conditions” and eliminate the phrase “such conditions as the Administrator specifies to the owner or operator.”

¹² *Id.*

E. CPMS Operating Limits

We proposed specific changes regarding the establishment and enforcement of CPMS operating limits. A discussion of the proposed changes, the public comments received, and the changes made for promulgation is provided in the following paragraphs and presented in greater detail in the comment summary and response document available in the docket for this action (Docket ID No. EPA-HQ-OAR-2014-0741).¹³

Procedures for establishing operating limits. We proposed procedures for establishing operating limits based on data recorded by CPMS. The 40 CFR part 63, subpart MM emissions standards include numerical emission limits, with compliance demonstrated through the proposed periodic performance tests, and operating limits (*e.g.*, opacity limits or continuously monitored parameter limits) used to demonstrate ongoing compliance in between performance tests. The original subpart MM regulatory text referred extensively to operating parameter ranges and is not as specific as more recent NESHAPs in specifying how operating limits are to be determined. Therefore, we proposed language to clarify the procedures for establishing parameter limits, beginning with the first periodic performance test proposed to be required under 40 CFR 63.865. We proposed that the operating limits be established as the average of the parameter values associated with each performance test run in 40 CFR 63.864(j). Wet scrubbers and RTOs have minimum operating limits, such that the EPA would consider 3-hour average values below the minimum operating limit to be a monitoring exceedance to be reported under 40 CFR 63.867(c) (81 FR 97078-79).

Multiple commenters objected to the proposed provisions in 40 CFR 63.864(j) that specify how operating parameter limits are established. The commenters argued that use of the

¹³ *Id.*

test average conflicts with the language in 40 CFR part 63, subpart MM that allows the operating parameter limits to be expanded based on additional test data and limits the flexibility facilities need to establish an operating limit that allows for the full range of process operation.

Commenters argued that the proposed methodology also conflicts with recent MACT rules such as the Boiler MACT rule (subpart DDDDD) that allows use of the lowest or highest individual test run to be used. Commenters concluded that flexibility in use of the hourly average value obtained during a test run and not the test average is important to establishing operating parameter limits that allow for a compliance demonstration at operating conditions below full load. Commenters stated that the ability to confirm the established operating limit during subsequent testing is another important element of flexibility needed in subpart MM.

Commenters also recommended that subpart MM should allow operating parameter limits to be adjusted to a level that is 90 percent of the value during the test to allow for operational flexibility.

In response to these comments, we have revised the rule from proposal to allow minimum operating parameter limits to be established based on the lowest 1-hour average value recorded during a performance test that demonstrates compliance. We have also revised the rule from proposal to allow facilities to confirm the established operating limits during subsequent testing instead of requiring the operating limits to be reestablished during each repeat test. With these added flexibilities, in addition to provisions included in 40 CFR 63.864(k) that specify corrective actions before an operating parameter violation is incurred, we did not include the commenter's suggested 90 percent adjustment for minimum operating parameter limits.

Facilities may establish a range of parameter values by conducting multiple performance tests.

Exceedances of operating limits. We proposed to eliminate the language in 40 CFR 63.864(k)(3) providing that no more than one non-opacity monitoring exceedance will be attributed in any 24-hour period (81 FR 97079). Multiple commenters argued that the EPA should not delete 40 CFR 63.864(k)(3), noting that facilities may experience consecutive 3-hour periods where operating parameter values (*e.g.*, concurrent scrubber flow and pressure drop) are out of range as part of the same event, despite a facility's best efforts to take corrective action as soon as possible. With the removal of the 24-hour defined period, commenters indicated it is unclear how to count concurrent parameter events for the purposes of determining a noncompliance count. Commenters also noted that 40 CFR part 63, subpart MM does not currently specify that the 3-hour wet scrubber continuous monitoring systems (CMS) are averaged over 3-hour blocks or 3-hour rolling periods and that states have not been consistent in applying this averaging period, so a facility with a 3-hour rolling average would consume the five allowed 3-hour averages in as little as 7 hours.

In response to these comments, we are not taking any final action to eliminate or in any way revise 40 CFR 63.864(k)(3). We recognize that one event could trigger multiple 3-hour exceedances in a 24-hour period, especially for facilities using a 3-hour rolling average. As originally promulgated, 40 CFR part 63, subpart MM did not specify whether 3-hours averages were to be reduced to 3-hour block or 3-hour rolling averages. As a result, commenters brought to our attention that some facilities are currently using block averages, while others are using rolling averages. Keeping in place the current provision in 40 CFR 63.864(k)(3) that no more than one exceedance will be attributed in any given 24-hour period avoids creating a difference in the compliance obligation between the two monitoring approaches.

F. Recordkeeping and Reporting Requirements

We proposed specific changes to the recordkeeping and reporting requirements. Major public comments on the proposed amendments to these requirements and the EPA's responses are discussed in the paragraphs below and presented in greater detail in the comment summary and response document, available in the docket for this action (Docket ID No. EPA-HQ-OAR-2014-0741).¹⁴

Reporting frequency and electronic reporting. As originally promulgated, 40 CFR part 63, subpart MM requires that owners and operators of facilities submit quarterly excess emissions reports for monitoring exceedances and periods of noncompliance and semiannual reports when no excess emissions have occurred during the reporting period. These excess emission reports are typically submitted as a hard copy to the delegated authority, and reports in this form usually are not readily available for the EPA and the public to analyze. We proposed that semiannual electronic reporting would provide ample data to assess a facility's performance with regard to the emissions standards in subpart MM. We proposed that all excess emissions reports be submitted on a semiannual basis in conjunction with requiring electronic reporting as discussed below (81 FR 97079). We received public comments supporting the reduction in reporting frequency and no comments disagreeing with this change. Therefore, we are finalizing this provision as proposed.

We proposed that owners and operators of 40 CFR part 63, subpart MM facilities submit performance test reports, semiannual reports, and notifications through CEDRI. The EPA believes that the electronic submittal of these reports will increase the usefulness of the data contained in the reports, is consistent with current trends in data availability, will further assist in

¹⁴ *Id.*

the protection of public health and the environment, and will ultimately result in less burden on the regulated community (81 FR 97079).

Multiple commenters stated that the EPA's proposed new electronic reporting requirement in 40 CFR part 63, subpart MM will be excessively burdensome to industry and is not justified. We disagree with these comments. Based on the analysis performed for the proposed Electronic Reporting and Recordkeeping Requirements for the New Source Performance Standards (*i.e.*, the NSPS electronic reporting rule) (80 FR 15100), electronic reporting results in an overall cost savings to industry when annualized over a 20-year period, although there are some initial costs in the short term (80 FR 15111). The cost savings is achieved through means such as standardization of data, embedded quality assurance (QA) checks, automatic calculation routines, and reduced data entry through the ability to reuse data in files instead of starting anew with each report. As outlined in the NSPS electronic reporting rule, there are many benefits to electronic reporting spanning all users of the data – the EPA, state and local regulators, the regulated entities, and the public. In the preamble to this proposed rule (81 FR 97079-80), we provided a number of reasons why the electronic reporting required by the amendments will provide benefits going forward and that most of the benefits we outlined were longer-term benefits (*e.g.*, eliminating “paper-based, manual processes, thereby saving time and resources, simplifying data entry, eliminating redundancies, minimizing data reporting errors and providing data quickly and accurately to the affected facilities, air agencies, the EPA and the public.”). For these reasons, we are finalizing the requirement to electronically report test results through CEDRI using the Electronic Reporting Tool (ERT).

One commenter noted that the EPA's ERT, which is used to generate the test data files uploaded to the EPA's CDX through CEDRI, continues to be revised and updated due to various

flaws. The commenter argued that it is unreasonable to put sources at risk of violations (due to late or inaccurate reporting) because of EPA reporting tool issues or availability. At a minimum, the commenter suggested that the requirement to use a particular CEDRI form should stipulate that the form has been available for 1 year, per the recently signed final, but not published NSPS electronic reporting rule. According to the commenter, that rule also provides for a reporting extension in the event of an outage of the EPA's CDX or CEDRI the week prior to a report's due date. The commenter suggested that this same allowance should be provided in 40 CFR part 63, subpart MM if the electronic reporting requirement is finalized.

We agree that it is unreasonable to put sources at risk of violations because of EPA reporting tool issues or availability. Based on commenter input and our consideration of the tasks that facilities must conduct prior to initial compliance, we have determined 1 year from the posting of the reporting form (*i.e.*, a spreadsheet template) on the CEDRI Web site will provide for a more efficient transition to electronic reporting of semiannual reports. For these reports, the initial compliance date for electronic reporting will be 1 year from the date the form is posted on the CEDRI Web site. We have also added language to the final rule to provide facilities with the ability to seek electronic reporting extensions for circumstances beyond the control of the facility, *i.e.*, for a possible outage in the CDX or CEDRI or for a force majeure event in the time just prior to a report's due date. If either the CDX or CEDRI is unavailable at any time beginning 5 business days prior to the date that the submission is due, and the unavailability prevents the submission of a report by the required date, a facility may assert a claim of EPA system outage. We consider 5 business days prior to the reporting deadline to be an appropriate timeframe because if the system is down prior to this time, facilities will have 1 week to complete reporting once the system is back online. We will provide notification of known outages as far in advance

as possible by the EPA's Clearinghouse for Inventories and Emissions Factors (CHIEF) Listserv notice, posting on the CEDRI Web site and posting on the CDX Web site to enable facilities to plan accordingly. However, if a planned or unplanned outage occurs and a facility believes that it will affect or it has affected compliance with an electronic reporting requirement, we have provided a process to assert such a claim. A force majeure event is an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents you from complying with the requirement to submit a report electronically as required by this rule. Examples of such events are acts of nature, acts of war or terrorism, or equipment failure or safety hazards beyond the control of the facility. If such an event occurs or is still occurring or if there are still lingering effects of the event in the 5 business days prior to a submission deadline, we have provided a process to assert a claim of force majeure. In both circumstances, reporting should occur as soon as possible once the situation has been resolved. We are providing these potential extensions to protect facilities from noncompliance in cases when a facility cannot successfully submit a report by the reporting deadline for reasons outside of its control, as described above. We are not providing an extension for other instances. You should register for CEDRI far in advance of the initial compliance date, in order to make sure that you can complete the identity proofing process prior to the initial compliance date. Additionally, we recommend you start developing reports early, in case any questions arise during the reporting process.

While we do agree that more time is necessary to comply with electronic reporting requirements for semiannual reports, we do not agree that more time is necessary to comply with electronic reporting requirements for performance test reports and performance evaluation reports, which are uploads of ERT files. The allotted 60 days should be ample time to determine

whether reports using the ERT need to be uploaded to the CDX through CEDRI. We also disagree that the ERT continues to be revised and updated due to various flaws. We acknowledge that, in early versions of the ERT, there were some issues, particularly related to rounding results. However, we have diligently worked to address issues as they have been brought to our attention. We have also added many improvements to the ERT based on feedback from users. We are finalizing the requirement to submit reports electronically to the EPA through CEDRI.

If the requirement for using CEDRI for electronic reporting remains in the final rule, commenters stated they would prefer filling and uploading the spreadsheet to fulfill the reporting requirements rather than entering the required information into a fillable CEDRI web form and increasing the chances of transcription errors, if they must choose between approaches. However, the commenters indicated their ultimate preference would be for facilities to upload their own already-formatted reports generated from their DAS, rather than reformatting the current information to fit the EPA's reporting form.

We acknowledge the commenter's support for the use of the spreadsheet style form for fulfilling reporting requirements. We intend to solely use the spreadsheet-style form for this rule in lieu of a fillable web form or extensible markup language (XML) submittal. Commenters provided a variety of detailed comments on the semiannual compliance reporting spreadsheet for 40 CFR part 63, subpart MM, which have resulted in a number of changes to the spreadsheet reporting form (template) for the final rule. For more information, see the comment summary and response document, available in the docket for this action (Docket ID No. EPA-HQ-OAR-2014-0741).¹⁵ We have also placed a copy of the revised electronic reporting spreadsheet template incorporating public comments in the docket. The spreadsheet template includes tabs

¹⁵ *Id.*

for excess emissions summary reports and excess emissions detailed reports (if required). We are not allowing free-form excess emissions summary reports because this does not allow for efficient electronic compilation of the information reported, a key benefit of electronic reporting. The final rule requires use of the excess emissions summary report tabs in the spreadsheet template for each semiannual report. However, when detailed reporting is required (*e.g.*, due to the number of operating limit exceedances or monitor downtime), facilities would be allowed to submit detailed reports in either the spreadsheet template format provided or in an alternative format specifying the required details (*e.g.*, as a separate file upload into CEDRI) given the length of detailed reports. Allowing a file upload of detailed reports in an alternate format allows facilities to provide data generated from their DAS.

As another burden-reducing measure, we have reduced the number of notifications proposed to be uploaded into CEDRI. As proposed, an electronic copy of all notifications required under 40 CFR part 63, subpart MM would have been required to be uploaded into CEDRI. Subpart MM requires numerous notifications listed in the NESHAP General Provisions (40 CFR part 63, subpart A), as specified in Table 1 of subpart MM. For example, facilities are required to notify their delegated authority prior to conducting or rescheduling performance tests, as well as in the event of a CMS performance evaluation. Considering comments on electronic reporting in general, and after reviewing the number of notifications, we revised the final rule to only require upload of initial notifications required in 40 CFR 63.9(b), notifications of compliance status required in 40 CFR 63.9(h), and the report of PM emission limits required in 40 CFR 63.867(b) to be included in a notification of compliance status. This change focuses CEDRI-reporting of notifications for subpart MM on key (non-routine) notifications that will be the most informative in conjunction with electronically submitted emissions test reports and

semiannual reports. Any of these notifications required after 2 years following the effective date of the final rule would be required to be uploaded into CEDRI in a user-specified file format. No specific form is being designed for subpart MM notifications at this time.

Excess emissions recordkeeping and reporting. We proposed specifying in 40 CFR 63.867(c)(1) and (3) the reporting requirements from the NESHAP General Provisions for the excess emissions and summary reports. We believed that specifying the General Provision reporting requirements for the proposed semiannual reports in 40 CFR part 63, subpart MM would help eliminate confusion as to which report is submitted (*e.g.*, full excess emissions report or summary report) and the content of the required report (81 FR 97080).

The EPA's intent with the proposed revisions to 40 CFR 63.867(c)(1) and (3) was to include the relevant language from 40 CFR 63.10(e)(3) of the General Provisions specifying the contents of summary and detailed excess emissions reports into 40 CFR part 63, subpart MM to improve clarity. However, we received public comments indicating that duplicating the relevant portions of 40 CFR 63.10(e)(3) as proposed may have caused some confusion. To remedy this confusion, we are splitting out the paragraphs of 40 CFR 63.10(e) and 63.10(e)(3) in the General Provisions applicability table (Table 1 to Subpart MM of Part 63) to more clearly indicate which sections apply or are replaced by sections in subpart MM. We are finalizing a revised version of 40 CFR 63.867(c)(1) that removes the proposed references to paragraphs in 40 CFR 63.10(e)(3), replaced by 40 CFR 63.867(c)(1). We are also noting in Table 1 that 40 CFR 63.867(c)(1) and (3) specify the contents of the summary and detailed excess emissions reports. We are finalizing a revised version of §63.867(c) that refers to the procedures in 40 CFR 63.867(d)(2) and 40 CFR 63.10(e)(3)(v) for submittal of the semiannual excess emission reports and summary reports.

Section 63.10(e)(3)(v) continues to apply and is not being replaced with language in 40 CFR part 63, subpart MM. This section specifies the delivery date for the report (*i.e.*, post-marked by the 30th business day following each calendar half) and general content for the report. The final rule now relies on 40 CFR 63.10(e)(3)(v) for the requirement: “When no excess emissions or exceedances of a parameter have occurred, or a CMS has not been inoperative, out of control, repaired, or adjusted, such information shall be stated in the report.”

In addition, we are not finalizing the proposed requirement in 40 CFR 63.867(c)(3)(iii)(A)(2) to include in the detailed excess emissions report the number of 6-minute opacity averages removed due to invalid readings, to address a comment that including this provision could imply that invalid opacity averages are periods of excess emissions. The CMS performance summary portion of the summary and detail reports provide sufficient information on the duration of invalid readings.

We proposed to revise the recordkeeping requirements section in 40 CFR 63.866(d)(2) to require that sources record information on failures to meet the applicable standard (81 FR 97081). We further proposed in 40 CFR 63.867(c)(4) to require reporting of this information in the excess emissions report along with an estimate of emissions associated with the failure. Multiple commenters objected to the proposed requirement that would have required an emissions estimate in association with opacity or parameter operating limits. The commenters argued that attempting to quantify emissions that may theoretically result from a violation of monitoring requirements would be extremely burdensome, impracticable, and would result in over-reporting and inaccurate emissions estimates. The commenters stated that, with a large margin of compliance, a monitoring violation may not actually result in emissions in excess of the applicable emission limit. They recommended that this proposed language be revised.

In response to this comment, we have revised the language in the final rulemaking to require emissions estimates to be provided in the semiannual report only for failures to meet “emission limits,” such as the PM (HAP metal), methanol, or THC limits contained in 40 CFR part 63, subpart MM. Failures to meet emission limits are likely to be discovered during periodic emissions tests, which provide a quantitative means for estimating emissions. Failures also include violations of opacity and parameter operating limits as specified in §63.864(k)(2), which are required to be reported with the corresponding number of failures, and the date, time, and duration of each failure in the semiannual report. The final rule does not require reporting of an emissions estimate associated with failure to meet an opacity or parameter operating limit, but does require facilities to maintain sufficient information to provide an emissions estimate if such an estimate was requested by the Administrator.

G. Technical and Editorial Changes

The EPA is finalizing as proposed (81 FR 97081) several technical and editorial corrections on which we received no public comments, including:

- Revisions throughout 40 CFR part 63, subpart MM to clarify the location in 40 CFR part 60 of applicable EPA test methods;
- Revisions throughout 40 CFR part 63, subpart MM to update the facility name for Cosmo Specialty Fibers;
- Revisions to the definitions section in 40 CFR 63.861 to:
 - Remove the definition for “black liquor gasification” and remove reference to black liquor gasification in the definitions for “kraft recovery furnace,” “recovery furnace,” “semichemical combustion unit,” and “soda recovery furnace”;
 - Remove the SSM exemption from the definition for “modification”;
 - Clarify that the definition for “particulate matter (PM)” refers to filterable PM;
 - Remove reference to use of one-half of the method detection limit for non-detect Method 29 measurements

- within the definition of "hazardous air pollutant (HAP) metals";
- o Change the definition for "smelt dissolving tanks (SDT)" to refer to the singular "smelt dissolving tank (SDT)" to be consistent with the use of the term in the rule; and
- o Remove the definition for "startup" that pertains to the former black liquor gasification system at Georgia-Pacific's facility in Big Island, Virginia.
- Correction of a misspelling in 40 CFR 63.862(c).
- Revisions to multiple sections (40 CFR 63.863, 63.866, and 63.867) to remove reference to the former smelters and former black liquor gasification system at Georgia-Pacific's facility in Big Island, Virginia.
- Revisions to the monitoring requirements section in 40 CFR 63.864 to add reference to Performance Specification 1 (PS-1) in COMS monitoring provisions and add incorporation by reference (IBR) for bag leak detection systems.
- Revisions to the performance test requirements section in 40 CFR 63.865 to change the ambient oxygen concentration in Equations 7 and 8 from 21 percent to 20.9 percent to make subpart MM consistent with the rest of the NESHAPs.
- Revision to the terminology in the delegation of authority section in 40 CFR 63.868 to match the definitions in 40 CFR 63.90.
- Revisions to the General Provisions applicability table (Table 1 to subpart MM of part 63) to align with those sections of the General Provisions that have been amended or reserved over time.

V. Summary of Cost, Environmental, and Economic Impacts and Additional Analyses

Conducted

A. What are the affected sources?

There are currently 107 major source pulp and paper mills operating in the U.S. that conduct chemical recovery combustion operations, including 97 kraft pulp mills, 1 soda pulp mill, 3 sulfite pulp mills, and 6 stand-alone semichemical pulp mills. The existing affected source regulated at kraft or soda pulp mills is each existing chemical recovery system, defined as all existing DCE and NDCE recovery furnaces, SDTs, and lime kilns. A DCE recovery furnace

system is defined to include the DCE recovery furnace and BLO system at the pulp mill. New affected sources at kraft or soda pulp mills include each new recovery furnace and associated SDT, and each new lime kiln. Subpart MM of 40 CFR part 63 affected sources also include each new or existing chemical recovery combustion unit located at a sulfite pulp mill or at a stand-alone semichemical pulp mill.

B. What are the air quality impacts?

At the current level of control, emissions of HAPs (HAP metals, acid gases, and gaseous organic HAPs) are approximately 11,600 tpy. Current emissions of PM (a surrogate pollutant for HAP metals) and total reduced sulfur compounds (emitted by the same mechanism as gaseous organic HAP) are approximately 23,200 tpy and 3,600 tpy, respectively.

The final amendments require all 107 mills subject to 40 CFR part 63, subpart MM to conduct periodic testing for their chemical recovery combustion operations; 96 mills with recovery furnaces or lime kilns equipped with ESP controls to meet more stringent opacity monitoring allowances and comply with a requirement to maintain proper operation of the ESP's AVC; and all 107 mills to operate without the SSM exemption. The EPA estimates that the final changes to the opacity monitoring allowances will result in no emissions reductions. We were unable to quantify the specific emissions reductions associated with periodic emissions testing or eliminating the SSM exemption, and we expect no emissions reductions with the aforementioned ESP requirement. Periodic testing will help facilities understand the emissions from and performance of their processes and control systems, and will help to identify potential issues that may otherwise go unnoticed, and thus, providing benefit to both the facilities and to surrounding populations. Eliminating the SSM exemption will reduce emissions by requiring facilities to meet the applicable standards at all times.

Indirect or secondary air emissions impacts are impacts that would result from the increased electricity usage associated with the operation of control devices (*i.e.*, increased secondary emissions of criteria pollutants from power plants, which include PM, carbon monoxide, nitrogen oxides, and sulfur dioxide). Energy impacts include the electricity and steam needed to operate control devices and other equipment that would be required under this final rule. The EPA estimates that the final changes to the opacity monitoring allowances will result in no energy impacts or secondary emissions of criteria pollutants. The EPA also expects no secondary air emissions impacts or energy impacts from the other final requirements.

For further information on these impacts, see the memorandum titled, *Revised Costs/Impacts of the Subpart MM Residual Risk and Technology Review for Promulgation*, available in the docket for this action (Docket ID No. EPA-HQ-OAR-2014-0741).

C. What are the cost impacts?

Costs associated with elimination of the startup and shutdown exemption were estimated as part of the reporting and recordkeeping costs and include time for re-evaluating previously developed SSM record systems. Costs to transition to electronic excess emissions reporting and adjust existing record systems for the revised opacity monitoring allowances were also estimated as part of the reporting and recordkeeping costs. Costs associated with periodic testing were estimated for the 73 mills that do not already conduct periodic testing and include the costs for EPA Method 5 filterable PM testing for kraft and soda recovery furnaces, lime kilns, and SDTs and sulfite combustion units; EPA Method 308 methanol testing for new kraft and soda recovery furnaces; and EPA Method 25A THC testing for semichemical combustion units. Costs associated with the requirement to maintain proper operation of ESP AVC were estimated for the 96 mills with ESP-controlled recovery furnaces and lime kilns and include only recordkeeping

costs, since existing ESPs are already expected to have these systems. The EPA estimates the nationwide capital costs associated with these new requirements to be \$3.8 million and the nationwide annual costs to be \$0.97 million to \$1.0 million per year at 3 percent and 7 percent interest rates, respectively.

For further information on these costs, see the memorandum titled, *Revised Costs/Impacts of the Subpart MM Residual Risk and Technology Review for Promulgation*, available in the docket for this action (Docket ID No. EPA-HQ-OAR-2014-0741).

D. What are the economic impacts?

The economic impact analysis is designed to inform decision makers about the potential economic consequences of a regulatory action. For the final rule, the EPA performed a partial-equilibrium analysis of national pulp and paper product markets to estimate potential paper product market impacts, as well as consumer and producer welfare impacts of the regulatory options.

Across regulatory options, the EPA estimates market-level changes in the paper and paperboard markets to be insignificant. For the final rule, the EPA predicts national-level weighted average paper and paperboard prices to increase about 0.01 percent, while total production levels decrease less than 0.01 percent on average.

In addition, the EPA performed a screening analysis for impacts on small businesses by comparing estimated annualized engineering compliance costs at the firm-level to firm sales. The screening analysis found that the ratio of compliance cost to firm revenue falls below 1 percent for the three small companies likely to be affected by the final rule. For small firms, the minimum and maximum cost-to-sales ratios are less than 1 percent.

More information and details of this analysis are provided in the technical document, titled *Economic Impact Analysis for Final Revisions to the National Emissions Standards for Hazardous Air Pollutants, Subpart MM, for the Pulp and Paper Industry*, available in the docket for this final rule (Docket ID No. EPA-HQ-OAR-2014-0741).

E. What are the benefits?

We do not estimate any significant reductions in HAP emissions as a result of these final amendments. However, the amendments will help to improve the clarity of the rule, which will improve compliance and, therefore, minimize emissions. Certain provisions also provide operational flexibility with no increase in HAP emissions.

F. What analysis of environmental justice did we conduct?

We examined the potential for any environmental justice issues that might be associated with the source category by performing a demographic analysis of the population close to the facilities. In this analysis, we evaluated the distribution of HAP-related cancer and non-cancer risks from the subpart MM source category across different social, demographic, and economic groups within the populations living near facilities identified as having the highest risks. The methodology and the results of the demographic analyses are included in a technical report, *Risk and Technology Review—Analysis of Socio-Economic Factors for Populations Living Near Pulp Mill Combustion Sources*, available in the docket for this action (Docket ID No. EPA-HQ-OAR-2014-0741). The results, for various demographic groups, are based on the estimated risks from actual emissions levels for the population living within 50 kilometers (km) of the facilities.¹⁶

The results of the subpart MM source category demographic analysis indicate that emissions from the source category expose approximately 7,600 people to a cancer risk at or

¹⁶ This metric comes from the Benzene NESHAP. See 54 FR 38046.

above 1-in-1 million and do not expose any person to a chronic non-cancer TOSHI greater than 1. The specific demographic results indicate that the percentage of the population potentially impacted by emissions is greater than its corresponding national percentage for the minority population (33 percent for the source category compared to 28 percent nationwide), the African American population (28 percent for the source category compared to 13 percent nationwide) and for the population over age 25 without a high school diploma (18 percent for the source category compared to 15 percent nationwide). The proximity results (irrespective of risk) indicate that the population percentages for certain demographic categories within 5 km of source category emissions are greater than the corresponding national percentage for those same demographics. The following demographic percentages for populations residing within close proximity to facilities with chemical recovery combustion sources are higher than the corresponding nationwide percentage: African American, ages 65 and up, over age 25 without a high school diploma, and below the poverty level.

The risks due to HAP emissions from this source category are low for all populations (*e.g.*, inhalation cancer risks are less than 4-in-1 million for all populations and non-cancer HIs are less than 1). Furthermore, we do not expect this final rule to achieve significant reductions in HAP emissions. Section IV.B of this preamble addresses opportunities as part of the technology review to further reduce HAP emissions. We did not find these technologies to be cost effective.

Therefore, we conclude that this final rule will not have disproportionately high and adverse human health or environmental effects on minority or low-income populations because it does not affect the level of protection provided to human health or the environment. However, this final rule will provide additional benefits to these demographic groups by improving the compliance, monitoring, and implementation of the NESHAP.

G. What analysis of children's environmental health did we conduct?

This action is not subject to Executive Order 13045 because it is not economically significant as defined in Executive Order 12866, and because the EPA does not believe the environmental health risks or safety risks addressed by this action present a disproportionate risk to children. The results of the subpart MM source category demographic analysis¹⁷ indicate that approximately 7,600 people are exposed to a cancer risk at or above 1-in-1 million and no one is exposed to a chronic non-cancer TOSHI greater than 1 due to emissions from the source category. The distribution of the population with risks above 1-in-1 million is 26 percent for ages 0 to 17, 61 percent for ages 18 to 64, and 13 percent for ages 65 and up. Children ages 0 to 17 also constitute 24 percent of the population nationwide. Therefore, the analysis shows that actual emissions from 40 CFR part 63, subpart MM facilities have only a slightly greater impact on children ages 0 to 17.

VI. Statutory and Executive Order Reviews

Additional information about these statutes and Executive Orders can be found at <http://www2.epa.gov/laws-regulations/laws-and-executive-orders>.

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

This action is not a significant regulatory action and was therefore not submitted to the Office of Management and Budget (OMB) for review.

B. Executive Order 13771: Reducing Regulations and Controlling Regulatory Costs

This action is not an Executive Order 13771 regulatory action because this action is not significant under Executive Order 12866.

¹⁷ See the following document in the docket titled, *Risk and Technology Review—Analysis of Socio-Economic Factors for Populations Living Near Pulp Mill Combustion Sources*.

C. Paperwork Reduction Act (PRA)

The information collection activities in this rule have been submitted for approval to OMB under the PRA. The ICR document that the EPA prepared has been assigned EPA ICR number 1805.09. You can find a copy of the ICR in the docket for this rule (Docket ID No. EPA-HQ-OAR-2014-0741), and it is briefly summarized here. The information collection requirements are not enforceable until OMB approves them.

The information requirements are based on notification, recordkeeping, and reporting requirements in the NESHAP General Provisions, which are essential in determining compliance and mandatory for all operators subject to national emissions standards. These recordkeeping and reporting requirements are specifically authorized by CAA section 114 (42 U.S.C. 7414). All information submitted to the EPA pursuant to the recordkeeping and reporting requirements for which a claim of confidentiality is made is safeguarded according to Agency policies set forth in 40 CFR part 2, subpart B.

We are finalizing changes to the 40 CFR part 63, subpart MM paperwork requirements in the form of eliminating the SSM reporting and SSM plan requirements, adding periodic emissions testing for selected process equipment, revising opacity monitoring allowances, adding a recordkeeping requirement for recovery furnaces and lime kilns equipped with ESPs, reducing the frequency of all excess emissions reports to semiannual, and requiring electronic submittal of all performance test reports and semiannual reports.

Respondents/affected entities: Respondents include chemical pulp mills operating equipment subject to 40 CFR part 63, subpart MM.

Respondent's obligation to respond: Mandatory (authorized by section 114 of the CAA).

Estimated number of respondents: 107.

Frequency of response: The frequency of responses varies depending on the burden item. Responses include notifications, reports of periodic performance tests, and semiannual compliance reports.

Total estimated burden: The estimated annual recordkeeping and reporting burden for this information collection, averaged over the first 3 years of this ICR, is 124,085 labor hours per year. Burden is defined at 5 CFR 1320.3(b).

Total estimated cost: \$14.1 to 14.2 million per year, including \$13.4 million per year in labor costs and \$0.7 to 0.8 million per year in annualized capital costs at 3 percent and 7 percent interest, respectively. These estimated costs represent the full ongoing information collection burden for 40 CFR part 63, subpart MM, as revised by the final amendments being promulgated.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for the EPA's regulations in 40 CFR are listed in 40 CFR part 9. When OMB approves this ICR, the Agency will announce that approval in the **Federal Register** and publish a technical amendment to 40 CFR part 9 to display the OMB control number for the approved information collection activities contained in this final rule.

D. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. In making this determination, the impact of concern is any significant adverse economic impact on small entities. An agency may certify that a rule will not have a significant economic impact on a substantial number of small entities if the rule relieves regulatory burden, has no net burden or otherwise has a positive economic effect on the small entities subject to the rule. The EPA estimates that all affected small entities will have

annualized costs of less than 1 percent of their sales. We have, therefore, concluded that this action will have no net regulatory burden for all directly regulated small entities. For more information on the small entity impacts associated with this rule, please refer to the *Economic Impact Analysis for Final Revisions to the National Emissions Standards for Hazardous Air Pollutants, Subpart MM, for the Pulp and Paper Industry* in the public docket (Docket ID No. EPA-HQ-OAR-2014-0741).

E. Unfunded Mandates Reform Act (UMRA)

This action does not contain an unfunded mandate of \$100 million or more as described in UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments. The action imposes no enforceable duty on any state, local, or tribal governments or the private sector.

F. Executive Order 13132: Federalism

This action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government.

G. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments

This action does not have tribal implications as specified in Executive Order 13175. It will not have substantial direct effects on tribal governments, on the relationship between the federal government and Indian tribes, or on the distribution of power and responsibilities between the federal government and Indian tribes, as specified in Executive Order 13175. This final rule imposes requirements on owners and operators of kraft, soda, sulfite, and stand-alone semichemical pulp mills and not tribal governments. The EPA does not know of any pulp mills owned or operated by Indian tribal governments, or located within tribal lands. However, if there

are any, the effect of this rule on communities of tribal governments would not be unique or disproportionate to the effect on other communities. Thus, Executive Order 13175 does not apply to this action.

H. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks

This action is not subject to Executive Order 13045 because it is not economically significant as defined in Executive Order 12866, and because the EPA does not believe the environmental health or safety risks addressed by this action present a disproportionate risk to children. This action's health and risk assessments are contained in section IV.A of this preamble and further documented in the risk report titled, *Residual Risk Assessment for Pulp Mill Combustion Sources in Support of the October 2017 Risk and Technology Review Final Rule*, available in the docket for this action (Docket ID No. EPA-HQ-OAR-2014-0741).

I. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

This action is not subject to Executive Order 13211 because it is not a significant regulatory action under Executive Order 12866.

J. National Technology Transfer and Advancement Act (NTTAA) and 1 CFR Part 51

This action involves technical standards. While the EPA identified ASTM D6784–02 (Reapproved 2008), “Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method)” as being potentially applicable, the Agency decided not to use it. The use of this voluntary consensus standard would be impractical because this standard is only acceptable as an alternative to the

portion of EPA Method 29 for mercury, and emissions testing for mercury alone is not required under 40 CFR part 63, subpart MM.

The EPA is incorporating into 40 CFR part 63, subpart MM the following guidance document: EPA-454/R-98-015, Office of Air Quality Planning and Standards (OAQPS), Fabric Filter Bag Leak Detection Guidance, September 1997. This guidance document provides procedures for selecting, installing, setting up, adjusting, and operating a bag leak detection system; and also includes QA procedures. This guidance document is readily accessible at <https://www.epa.gov/emc/emc-continuous-emission-monitoring-systems>.

K. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

The EPA believes that this action does **not** have disproportionately high and adverse human health or environmental effects on minority populations, low-income populations, and/or indigenous peoples, as specified in Executive Order 12898 (59 FR 7629, February 16, 1994).

The documentation for this decision is contained in section V.F of this preamble and the technical report titled, *Risk and Technology Review—Analysis of Socio-Economic Factors for Populations Living Near Pulp Mill Combustion Sources*, in the public docket for this action (Docket ID No. EPA-HQ-OAR-2014-0741).

L. Congressional Review Act (CRA)

This action is subject to the CRA, and the EPA will submit a rule report to each House of the Congress and to the Comptroller General of the United States. This action is not a “major rule” as defined by 5 U.S.C. 804(2).

List of Subjects in 40 CFR Part 63

Environmental protection, Administrative practice and procedures, Air pollution control,
Hazardous substances, Incorporation by reference, Intergovernmental relations, Pulp and paper
mills, Reporting and recordkeeping requirements.

Dated: September 29, 2017.

E. Scott Pruitt,
Administrator.

For the reasons set out in the preamble, title 40, chapter I, part 63 of the Code of Federal Regulations is amended as follows:

PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES

1. The authority citation for part 63 continues to read as follows:

Authority: 42 U.S.C. 7401 *et seq.*

Subpart A—[Amended]

2. Section 63.14 is amended by revising paragraph (m)(3) to read as follows:

§63.14 Incorporations by reference.

* * * * *

(m) * * *

(3) EPA-454/R-98-015, Office of Air Quality Planning and Standards (OAQPS), Fabric Filter Bag Leak Detection Guidance, September 1997,
<https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockkey=2000D5T6.PDF>, IBR approved for §§63.548(e), 63.864(e), 63.7525(j), 63.8450(e), 63.8600(e), and 63.11224(f).

* * * * *

Subpart MM—[Amended]

3. Section 63.860 is amended by revising paragraphs (b)(5) and (7) and adding paragraph (d) to read as follows:

§63.860 Applicability and designation of affected source.

* * * * *

(b) * * *

(5) Each new or existing sulfite combustion unit located at a sulfite pulp mill, except such existing units at Cosmo Specialty Fibers' Cosmopolis, Washington facility (Emission Unit no. AP-10).

* * * * *

(7) The requirements of the alternative standard in §63.862(d) apply to the hog fuel dryer at Cosmo Specialty Fibers' Cosmopolis, Washington facility (Emission Unit no. HD-14).

* * * * *

(d) At all times, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

4. Section 63.861 is amended by:

- a. Removing the definition for "Black liquor gasification";
- b. Revising the definitions for "Hazardous air pollutants (HAP) metals," "Hog fuel dryer," "Kraft recovery furnace," "Modification," "Particulate matter (PM)," "Recovery furnace," "Semichemical combustion unit," "Smelt dissolving tanks," and "Soda recovery furnace";
- c. Removing the definition for "Startup"; and

d. Revising the definition for “Total hydrocarbons (THC).”

The revisions read as follows:

§63.861 Definitions.

* * * * *

Hazardous air pollutants (HAP) metals means the sum of all emissions of antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, mercury, nickel, and selenium as measured by EPA Method 29 (40 CFR part 60, appendix A-8).

Hog fuel dryer means the equipment that combusts fine particles of wood waste (hog fuel) in a fluidized bed and directs the heated exhaust stream to a rotary dryer containing wet hog fuel to be dried prior to combustion in the hog fuel boiler at Cosmo Specialty Fibers’ Cosmopolis, Washington facility. The hog fuel dryer at Cosmo Specialty Fibers’ Cosmopolis, Washington facility is Emission Unit no. HD-14.

* * * * *

Kraft recovery furnace means a recovery furnace that is used to burn black liquor produced by the kraft pulping process, as well as any recovery furnace that burns black liquor produced from both the kraft and semichemical pulping processes, and includes the direct contact evaporator, if applicable.

* * * * *

Modification means, for the purposes of §63.862(a)(1)(ii)(E)(1), any physical change (excluding any routine part replacement or maintenance) or operational change that is made to the air pollution control device that could result in an increase in PM emissions.

* * * * *

Particulate matter (PM) means total filterable particulate matter as measured by EPA Method 5 (40 CFR part 60, appendix A-3), EPA Method 17 (§63.865(b)(1)) (40 CFR part 60, appendix A-6), or EPA Method 29 (40 CFR part 60, appendix A-8).

* * * * *

Recovery furnace means an enclosed combustion device where concentrated black liquor produced by the kraft or soda pulping process is burned to recover pulping chemicals and produce steam.

* * * * *

Semichemical combustion unit means any equipment used to combust or pyrolyze black liquor at stand-alone semichemical pulp mills for the purpose of chemical recovery.

* * * * *

Smelt dissolving tank (SDT) means a vessel used for dissolving the smelt collected from a kraft or soda recovery furnace.

* * * * *

Soda recovery furnace means a recovery furnace used to burn black liquor produced by the soda pulping process and includes the direct contact evaporator, if applicable.

* * * * *

Total hydrocarbons (THC) means the sum of organic compounds measured as carbon using EPA Method 25A (40 CFR part 60, appendix A-7).

5. Section 63.862 is amended by revising paragraphs (c)(1) and (d) to read as follows:

§63.862 Standards.

* * * * *

(c) *Standards for gaseous organic HAP.* (1) The owner or operator of any new recovery furnace at a kraft or soda pulp mill must ensure that the concentration of gaseous organic HAP, as measured by methanol, discharged to the atmosphere is no greater than 0.012 kg/Mg (0.025 lb/ton) of black liquor solids fired.

* * * * *

(d) *Alternative standard.* As an alternative to meeting the requirements of paragraph (a)(2) of this section, the owner or operator of the existing hog fuel dryer at Cosmo Specialty Fibers' Cosmopolis, Washington facility (Emission Unit no. HD-14) must ensure that the mass of PM in the exhaust gases discharged to the atmosphere from the hog fuel dryer is less than or equal to 4.535 kilograms per hour (kg/hr) (10.0 pounds per hour (lb/hr)).

6. Section 63.863 is amended by revising paragraphs (a) and (c) to read as follows:

§63.863 Compliance dates.

(a) The owner or operator of an existing affected source or process unit must comply with the requirements in this subpart no later than March 13, 2004, except as noted in paragraph (c) of this section.

* * * * *

(c) The owner or operator of an existing source or process unit must comply with the revised requirements published on **[INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]** no later than October 11, 2019, with the exception of the following:

(1) The first of the 5-year periodic performance tests must be conducted by October 13, 2020, and thereafter within 5 years following the previous performance test; and

(2) The date to submit performance test data through the CEDRI is within 60 days after the date of completing each performance test.

7. Section 63.864 is amended by:

- a. Revising the introductory text of paragraph (d) and paragraph (d)(4);
- b. Adding paragraphs (e)(1) and (2);
- c. Revising paragraphs (e)(10)(i) and (ii);
- d. Adding paragraph (e)(10)(iii);
- e. Revising the introductory text of paragraph (e)(12) and paragraphs (e)(12)(i), (ix), and (x);
- f. Revising paragraphs (e)(13) and (14);
- g. Adding paragraph (f);
- h. Revising paragraph (g);
- i. Adding paragraph (h); and
- j. Revising paragraphs (j) and (k).

The revisions and additions read as follows:

§63.864 Monitoring requirements.

* * * * *

(d) *Continuous opacity monitoring system (COMS)*. The owner or operator of each affected kraft or soda recovery furnace or lime kiln equipped with an ESP must install, calibrate, maintain, and operate a COMS in accordance with Performance Specification 1 (PS-1) in appendix B to 40 CFR part 60 and the provisions in §§63.6(h) and 63.8 and paragraphs (d)(3) and (4) of this section.

* * * * *

(4) As specified in §63.8(g)(2), each 6-minute COMS data average must be calculated as the average of 36 or more data points, equally spaced over each 6-minute period.

(e) * * *

(1) For any kraft or soda recovery furnace or lime kiln using an ESP emission control device, the owner or operator must maintain proper operation of the ESP's automatic voltage control (AVC).

(2) For any kraft or soda recovery furnace or lime kiln using an ESP followed by a wet scrubber, the owner or operator must follow the parameter monitoring requirements specified in paragraphs (e)(1) and (10) of this section. The opacity monitoring system specified in paragraph (d) of this section is not required for combination ESP/wet scrubber control device systems.

* * * * *

(10) * * *

(i) A monitoring device used for the continuous measurement of the pressure drop of the gas stream across the scrubber must be certified by the manufacturer to be accurate to within a gage pressure of ± 500 pascals (± 2 inches of water gage pressure); and

(ii) A monitoring device used for continuous measurement of the scrubbing liquid flow rate must be certified by the manufacturer to be accurate within ± 5 percent of the design scrubbing liquid flow rate.

(iii) As an alternative to pressure drop measurement under paragraph (e)(3)(i) of this section, a monitoring device for measurement of fan amperage may be used for smelt dissolving tank dynamic scrubbers that operate at ambient pressure or for low-energy entrainment scrubbers where the fan speed does not vary.

* * * * *

(12) The owner or operator of the affected hog fuel dryer at Cosmo Specialty Fibers' Cosmopolis, Washington facility (Emission Unit no. HD-14) must meet the requirements in paragraphs (e)(12)(i) through (xi) of this section for each bag leak detection system.

(i) The owner or operator must install, calibrate, maintain, and operate each triboelectric bag leak detection system according to EPA-454/R-98-015, "Fabric Filter Bag Leak Detection Guidance" (incorporated by reference--see §63.14). The owner or operator must install, calibrate, maintain, and operate other types of bag leak detection systems in a manner consistent with the manufacturer's written specifications and recommendations.

* * * * *

(ix) The baseline output must be established by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time according to section 5.0 of the "Fabric Filter Bag Leak Detection Guidance" (incorporated by reference--see §63.14).

(x) Following initial adjustment of the system, the sensitivity or range, averaging period, alarm set points, or alarm delay time may not be adjusted except as detailed in the site-specific monitoring plan. In no case may the sensitivity be increased by more than 100 percent or decreased more than 50 percent over a 365-day period unless such adjustment follows a complete fabric filter inspection which demonstrates that the fabric filter is in good operating condition, as defined in section 5.2 of the "Fabric Filter Bag Leak Detection Guidance," (incorporated by reference--see §63.14). Record each adjustment.

* * * * *

(13) The owner or operator of each affected source or process unit that uses an ESP, wet scrubber, RTO, or fabric filter may monitor alternative control device operating parameters

subject to prior written approval by the Administrator. The request for approval must also include the manner in which the parameter operating limit is to be set.

(14) The owner or operator of each affected source or process unit that uses an air pollution control system other than an ESP, wet scrubber, RTO, or fabric filter must provide to the Administrator an alternative monitoring request that includes a description of the control device, test results verifying the performance of the control device, the appropriate operating parameters that will be monitored, how the operating limit is to be set, and the frequency of measuring and recording to establish continuous compliance with the standards. The alternative monitoring request is subject to the Administrator's approval. The owner or operator of the affected source or process unit must install, calibrate, operate, and maintain the monitor(s) in accordance with the alternative monitoring request approved by the Administrator. The owner or operator must include in the information submitted to the Administrator proposed performance specifications and quality assurance procedures for the monitors. The Administrator may request further information and will approve acceptable test methods and procedures. The owner or operator must monitor the parameters as approved by the Administrator using the methods and procedures in the alternative monitoring request.

(f) *Data quality assurance.* The owner or operator shall keep CMS data quality assurance procedures consistent with the requirements in §63.8(d)(1) and (2) on record for the life of the affected source or until the affected source is no longer subject to the provisions of this part, to be made available for inspection, upon request, by the Administrator. If the performance evaluation plan in §63.8(d)(2) is revised, the owner or operator shall keep previous (*i.e.*, superseded) versions of the performance evaluation plan on record to be made available for

inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. The program of corrective action should be included in the plan required under §63.8(d)(2).

(g) *Gaseous organic HAP.* The owner or operator of each affected source or process unit complying with the gaseous organic HAP standard of §63.862(c)(1) through the use of an NDCE recovery furnace equipped with a dry ESP system is not required to conduct any continuous monitoring to demonstrate compliance with the gaseous organic HAP standard.

(h) *Monitoring data.* As specified in §63.8(g)(5), monitoring data recorded during periods of unavoidable CMS breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high level adjustments must not be included in any data average computed under this subpart.

* * * * *

(j) *Determination of operating limits.* (1) During the initial or periodic performance test required in §63.865, the owner or operator of any affected source or process unit must establish operating limits for the monitoring parameters in paragraphs (e)(1) and (2) and (e)(10) through (14) of this section, as appropriate; or

(2) The owner or operator may base operating limits on values recorded during previous performance tests or conduct additional performance tests for the specific purpose of establishing operating limits, provided that data used to establish the operating limits are or have been obtained during testing that used the test methods and procedures required in this subpart. The owner or operator of the affected source or process unit must certify that all control techniques and processes have not been modified subsequent to the testing upon which the data used to establish the operating parameter limits were obtained.

(3) The owner or operator of an affected source or process unit may establish expanded or replacement operating limits for the monitoring parameters listed in paragraphs (e)(1) and (2) and (e)(10) through (14) of this section and established in paragraph (j)(1) or (2) of this section during subsequent performance tests using the test methods in §63.865.

(4) The owner or operator of the affected source or process unit must continuously monitor each parameter and determine the arithmetic average value of each parameter during each performance test run. Multiple performance tests may be conducted to establish a range of parameter values. Operating outside a previously established parameter limit during a performance test to expand the operating limit range does not constitute a monitoring exceedance. Operating limits must be confirmed or reestablished during performance tests.

(5) New, expanded, or replacement operating limits for the monitoring parameter values listed in paragraphs (e)(1) and (2) and (e)(10) through (14) of this section should be determined as described in paragraphs (j)(5)(i) and (ii) of this section.

(i) The owner or operator of an affected source or process unit that uses a wet scrubber must set a minimum scrubber pressure drop operating limit as the lowest of the 1-hour average pressure drop values associated with each test run demonstrating compliance with the applicable emission limit in §63.862.

(A) For a smelt dissolving tank dynamic wet scrubber operating at ambient pressure or for low-energy entrainment scrubbers where fan speed does not vary, the minimum fan amperage operating limit must be set as the lowest of the 1-hour average fan amperage values associated with each test run demonstrating compliance with the applicable emission limit in §63.862.

(B) [Reserved]

(ii) The owner operator of an affected source equipped with an RTO must set the minimum operating temperature of the RTO as the lowest of the 1-hour average temperature values associated with each test run demonstrating compliance with the applicable emission limit in §63.862.

(k) *On-going compliance provisions.* (1) Following the compliance date, owners or operators of all affected sources or process units are required to implement corrective action if the monitoring exceedances in paragraphs (k)(1)(i) through (vii) of this section occur during times when spent pulping liquor or lime mud is fed (as applicable). Corrective action can include completion of transient startup and shutdown conditions as expeditiously as possible.

(i) For a new or existing kraft or soda recovery furnace or lime kiln equipped with an ESP, when the average of ten consecutive 6-minute averages result in a measurement greater than 20 percent opacity;

(ii) For a new or existing kraft or soda recovery furnace, kraft or soda smelt dissolving tank, kraft or soda lime kiln, or sulfite combustion unit equipped with a wet scrubber, when any 3-hour average parameter value is below the minimum operating limit established in paragraph (j) of this section, with the exception of pressure drop during periods of startup and shutdown;

(iii) For a new or existing kraft or soda recovery furnace or lime kiln equipped with an ESP followed by a wet scrubber, when any 3-hour average scrubber parameter value is below the minimum operating limit established in paragraph (j) of this section, with the exception of pressure drop during periods of startup and shutdown;

(iv) For a new or existing semichemical combustion unit equipped with an RTO, when any 1-hour average temperature falls below the minimum temperature operating limit established in paragraph (j) of this section;

(v) For the hog fuel dryer at Cosmo Specialty Fibers' Cosmopolis, Washington facility (Emission Unit no. HD-14), when the bag leak detection system alarm sounds;

(vi) For an affected source or process unit equipped with an ESP, wet scrubber, RTO, or fabric filter and monitoring alternative operating parameters established in paragraph (e)(13) of this section, when any 3-hour average value does not meet the operating limit established in paragraph (j) of this section; and

(vii) For an affected source or process unit equipped with an alternative air pollution control system and monitoring operating parameters approved by the Administrator as established in paragraph (e)(14) of this section, when any 3-hour average value does not meet the operating limit established in paragraph (j) of this section.

(2) Following the compliance date, owners or operators of all affected sources or process units are in violation of the standards of §63.862 if the monitoring exceedances in paragraphs (k)(2)(i) through (ix) of this section occur during times when spent pulping liquor or lime mud is fed (as applicable):

(i) For an existing kraft or soda recovery furnace equipped with an ESP, when opacity is greater than 35 percent for 2 percent or more of the operating time within any semiannual period;

(ii) For a new kraft or soda recovery furnace equipped with an ESP, when opacity is greater than 20 percent for 2 percent or more of the operating time within any semiannual period;

(iii) For a new or existing kraft or soda lime kiln equipped with an ESP, when opacity is greater than 20 percent for 3 percent or more of the operating time within any semiannual period;

(iv) For a new or existing kraft or soda recovery furnace, kraft or soda smelt dissolving tank, kraft or soda lime kiln, or sulfite combustion unit equipped with a wet scrubber, when six or more 3-hour average parameter values within any 6-month reporting period are below the

minimum operating limits established in paragraph (j) of this section, with the exception of pressure drop during periods of startup and shutdown;

(v) For a new or existing kraft or soda recovery furnace or lime kiln equipped with an ESP followed by a wet scrubber, when six or more 3-hour average scrubber parameter values within any 6-month reporting period are outside the range of values established in paragraph (j) of this section, with the exception of pressure drop during periods of startup and shutdown;

(vi) For a new or existing semichemical combustion unit equipped with an RTO, when any 3-hour average temperature falls below the temperature established in paragraph (j) of this section;

(vii) For the hog fuel dryer at Cosmo Specialty Fibers' Cosmopolis, Washington facility (Emission Unit no. HD-14), when corrective action is not initiated within 1 hour of a bag leak detection system alarm and the alarm is engaged for more than 5 percent of the total operating time in a 6-month block reporting period. In calculating the operating time fraction, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted; if corrective action is required, each alarm is counted as a minimum of 1 hour; if corrective action is not initiated within 1 hour, the alarm time is counted as the actual amount of time taken to initiate corrective action;

(viii) For an affected source or process unit equipped with an ESP, wet scrubber, RTO, or fabric filter and monitoring alternative operating parameters established in paragraph (e)(13) of this section, when six or more 3-hour average values within any 6-month reporting period do not meet the operating limits established in paragraph (j) of this section; and

(ix) For an affected source or process unit equipped with an alternative air pollution control system and monitoring operating parameters approved by the Administrator as

established in paragraph (e)(14) of this section, when six or more 3-hour average values within any 6-month reporting period do not meet the operating limits established in paragraph (j) of this section.

(3) For purposes of determining the number of nonopacity monitoring exceedances, no more than one exceedance will be attributed in any given 24-hour period.

8. Section 63.865 is amended by revising the introductory text and paragraphs (b)(1) through (5), (c)(1), and the introductory text of paragraph (d) to read as follows:

§63.865 Performance test requirements and test methods.

The owner or operator of each affected source or process unit subject to the requirements of this subpart is required to conduct an initial performance test and periodic performance tests using the test methods and procedures listed in §63.7 and paragraph (b) of this section. The owner or operator must conduct the first of the periodic performance tests within 3 years of the effective date of the revised standards and thereafter within 5 years following the previous performance test. Performance tests shall be conducted based on representative performance (*i.e.*, performance based on normal operating conditions) of the affected source for the period being tested. Representative conditions exclude periods of startup and shutdown. The owner or operator may not conduct performance tests during periods of malfunction. The owner or operator must record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation. Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

* * * * *

(b) * * *

(1) For purposes of determining the concentration or mass of PM emitted from each kraft or soda recovery furnace, sulfite combustion unit, smelt dissolving tank, lime kiln, or the hog fuel dryer at Cosmo Specialty Fibers' Cosmopolis, Washington facility (Emission Unit no. HD-14), Method 5 in appendix A-3 of 40 CFR part 60 or Method 29 in appendix A-8 of 40 CFR part 60 must be used, except that Method 17 in appendix A-6 of 40 CFR part 60 may be used in lieu of Method 5 or Method 29 if a constant value of 0.009 g/dscm (0.004 gr/dscf) is added to the results of Method 17, and the stack temperature is no greater than 205 °C (400 °F). For Methods 5, 29, and 17, the sampling time and sample volume for each run must be at least 60 minutes and 0.90 dscm (31.8 dscf), and water must be used as the cleanup solvent instead of acetone in the sample recovery procedure.

(2) For sources complying with §63.862(a) or (b), the PM concentration must be corrected to the appropriate oxygen concentration using Equation 7 of this section as follows:

$$C_{\text{corr}} = C_{\text{meas}} \times (20.9 - X) / (20.9 - Y) \quad (\text{Eq. 7})$$

Where:

C_{corr} = the measured concentration corrected for oxygen, g/dscm (gr/dscf);

C_{meas} = the measured concentration uncorrected for oxygen, g/dscm (gr/dscf);

X = the corrected volumetric oxygen concentration (8 percent for kraft or soda recovery furnaces and sulfite combustion units and 10 percent for kraft or soda lime kilns); and

Y = the measured average volumetric oxygen concentration.

(3) Method 3A or 3B in appendix A-2 of 40 CFR part 60 must be used to determine the oxygen concentration. The voluntary consensus standard ANSI/ASME PTC 19.10-1981—Part 10 (incorporated by reference—see §63.14) may be used as an alternative to using Method 3B.

The gas sample must be taken at the same time and at the same traverse points as the particulate sample.

(4) For purposes of complying with §63.862(a)(1)(ii)(A), the volumetric gas flow rate must be corrected to the appropriate oxygen concentration using Equation 8 of this section as follows:

$$Q_{\text{corr}} = Q_{\text{meas}} \times (20.9 - Y) / (20.9 - X) \quad (\text{Eq. 8})$$

Where:

Q_{corr} = the measured volumetric gas flow rate corrected for oxygen, dscm/min (dscf/min).

Q_{meas} = the measured volumetric gas flow rate uncorrected for oxygen, dscm/min (dscf/min).

Y = the measured average volumetric oxygen concentration.

X = the corrected volumetric oxygen concentration (8 percent for kraft or soda recovery furnaces and 10 percent for kraft or soda lime kilns).

(5)(i) For purposes of selecting sampling port location and number of traverse points, Method 1 or 1A in appendix A-1 of 40 CFR part 60 must be used;

(ii) For purposes of determining stack gas velocity and volumetric flow rate, Method 2, 2A, 2C, 2D, or 2F in appendix A-1 of 40 CFR part 60 or Method 2G in appendix A-2 of 40 CFR part 60 must be used;

(iii) For purposes of conducting gas analysis, Method 3, 3A, or 3B in appendix A-2 of 40 CFR part 60 must be used. The voluntary consensus standard ANSI/ASME PTC 19.10-1981—Part 10 (incorporated by reference—see §63.14) may be used as an alternative to using Method 3B; and

(iv) For purposes of determining moisture content of stack gas, Method 4 in appendix A-3 of 40 CFR part 60 must be used.

* * * * *

(c) * * *

(1) The owner or operator complying through the use of an NDCE recovery furnace equipped with a dry ESP system is required to conduct periodic performance testing using Method 308 in appendix A of this part, as well as the methods listed in paragraphs (b)(5)(i) through (iv) of this section to demonstrate compliance with the gaseous organic HAP standard. The requirements and equations in paragraph (c)(2) of this section must be met and utilized, respectively.

* * * * *

(d) The owner or operator seeking to determine compliance with the gaseous organic HAP standards in §63.862(c)(2) for semichemical combustion units must use Method 25A in appendix A-7 of 40 CFR part 60, as well as the methods listed in paragraphs (b)(5)(i) through (iv) of this section. The sampling time for each Method 25A run must be at least 60 minutes. The calibration gas for each Method 25A run must be propane.

* * * * *

9. Section 63.866 is amended by removing and reserving paragraph (a) and revising paragraphs (c) and (d) to read as follows:

§63.866 Recordkeeping requirements.

* * * * *

(c) In addition to the general records required by §63.10(b)(2)(iii) and (vi) through (xiv), the owner or operator must maintain records of the information in paragraphs (c)(1) through (8) of this section:

(1) Records of black liquor solids firing rates in units of Mg/d or ton/d for all recovery furnaces and semichemical combustion units;

(2) Records of CaO production rates in units of Mg/d or ton/d for all lime kilns;

(3) Records of parameter monitoring data required under §63.864, including any period when the operating parameter levels were inconsistent with the levels established during the performance test, with a brief explanation of the cause of the monitoring exceedance, the time the monitoring exceedance occurred, the time corrective action was initiated and completed, and the corrective action taken;

(4) Records and documentation of supporting calculations for compliance determinations made under §63.865(a) through (d);

(5) Records of parameter operating limits established for each affected source or process unit;

(6) Records certifying that an NDCE recovery furnace equipped with a dry ESP system is used to comply with the gaseous organic HAP standard in §63.862(c)(1);

(7) For the bag leak detection system on the hog fuel dryer fabric filter at Cosmo Specialty Fibers' Cosmopolis, Washington facility (Emission Unit no. HD-14), records of each alarm, the time of the alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action taken; and

(8) Records demonstrating compliance with the requirement in §63.864(e)(1) to maintain proper operation of an ESP's AVC.

(d)(1) In the event that an affected unit fails to meet an applicable standard, including any emission limit in §63.862 or any opacity or CPMS operating limit in §63.864, record the number of failures. For each failure record the date, start time, and duration of each failure.

(2) For each failure to meet an applicable standard, record and retain a list of the affected sources or equipment, and the following information:

(i) For any failure to meet an emission limit in §63.862, record an estimate of the quantity of each regulated pollutant emitted over the emission limit and a description of the method used to estimate the emissions.

(ii) For each failure to meet an operating limit in §63.864, maintain sufficient information to estimate the quantity of each regulated pollutant emitted over the emission limit. This information must be sufficient to provide a reliable emissions estimate if requested by the Administrator.

(3) Record actions taken to minimize emissions in accordance with §63.860(d) and any corrective actions taken to return the affected unit to its normal or usual manner of operation.

10. Section 63.867 is amended by:

- a. Removing and reserving paragraph (a)(2);
- b. Revising paragraph (a)(3);
- c. Revising paragraph (c); and
- d. Adding paragraph (d).

The revisions and additions read as follows:

§63.867 Reporting requirements.

(a) * * *

(3) In addition to the requirements in subpart A of this part, the owner or operator of the hog fuel dryer at Cosmo Specialty Fibers' Cosmopolis, Washington, facility (Emission Unit no. HD-14) must include analysis and supporting documentation demonstrating conformance with

EPA guidance and specifications for bag leak detection systems in §63.864(e)(12) in the Notification of Compliance Status.

* * * * *

(c) *Excess emissions report.* The owner or operator must submit semiannual excess emissions reports containing the information specified in paragraphs (c)(1) through (5) of this section. The owner or operator must submit semiannual excess emission reports and summary reports following the procedure specified in paragraph (d)(2) of this section as specified in §63.10(e)(3)(v).

(1) If the total duration of excess emissions or process control system parameter exceedances for the reporting period is less than 1 percent of the total reporting period operating time, and CMS downtime is less than 5 percent of the total reporting period operating time, only the summary report is required to be submitted. This report will be titled “Summary Report – Gaseous and Opacity Excess Emissions and Continuous Monitoring System Performance” and must contain the information specified in paragraphs (c)(1)(i) through (x) of this section.

(i) The company name and address and name of the affected facility.

(ii) Beginning and ending dates of the reporting period.

(iii) An identification of each process unit with the corresponding air pollution control device, being included in the semiannual report, including the pollutants monitored at each process unit, and the total operating time for each process unit.

(iv) An identification of the applicable emission limits, operating parameter limits, and averaging times.

(v) An identification of the monitoring equipment used for each process unit and the corresponding model number.

(vi) Date of the last CMS certification or audit.

(vii) An emission data summary, including the total duration of excess emissions (recorded in minutes for opacity and hours for gases), the duration of excess emissions expressed as a percent of operating time, the number of averaging periods recorded as excess emissions, and reason for the excess emissions (*e.g.*, startup/shutdown, control equipment problems, other known reasons, or other unknown reasons).

(viii) A CMS performance summary, including the total duration of CMS downtime during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of CMS downtime expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total CMS downtime during the reporting period (*e.g.*, monitoring equipment malfunction, non-monitoring equipment malfunction, quality assurance, quality control calibrations, other known causes, or other unknown causes).

(ix) A description of changes to CMS, processes, or controls since last reporting period.

(x) A certification by a certifying official of truth, accuracy and completeness. This will state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(2) [Reserved]

(3) If measured parameters meet any of the conditions specified in §63.864(k)(1) or (2), the owner or operator of the affected source must submit a semiannual report describing the excess emissions that occurred. If the total duration of monitoring exceedances for the reporting period is 1 percent or greater of the total reporting period operating time, or the total CMS downtime for the reporting period is 5 percent or greater of the total reporting period operating time, or any violations according to §63.864(k)(2) occurred, information from both the summary

report and the excess emissions and continuous monitoring system performance report must be submitted. This report will be titled “Excess Emissions and Continuous Monitoring System Performance Report” and must contain the information specified in paragraphs (c)(1)(i) through (x) of this section, in addition to the information required in §63.10(c)(5) through (14), as specified in paragraphs (c)(3)(i) through (vi) of this section. Reporting monitoring exceedances does not constitute a violation of the applicable standard unless the violation criteria in §63.864(k)(2) and (3) are reached.

(i) An identification of the date and time identifying each period during which the CMS was inoperative except for zero (low-level) and high-level checks.

(ii) An identification of the date and time identifying each period during which the CMS was out of control, as defined in §63.8(c)(7).

(iii) The specific identification of each period of excess emissions and parameter monitoring exceedances as described in paragraphs (c)(3)(iii)(A) through (E) of this section.

(A) For opacity:

(1) The total number of 6-minute averages in the reporting period (excluding process unit downtime).

(2) [Reserved]

(3) The number of 6-minute averages in the reporting period that exceeded the relevant opacity limit.

(4) The percent of 6-minute averages in the reporting period that exceed the relevant opacity limit.

(5) An identification of each exceedance by start and end time, date, and cause of exceedance (including startup/shutdown, control equipment problems, process problems, other known causes, or other unknown causes).

(B) [Reserved]

(C) For wet scrubber operating parameters:

(1) The operating limits established during the performance test for scrubbing liquid flow rate and pressure drop across the scrubber (or fan amperage if used for smelt dissolving tank scrubbers).

(2) The number of 3-hour wet scrubber parameter averages below the minimum operating limit established during the performance test, if applicable.

(3) An identification of each exceedance by start and end time, date, and cause of exceedance (including startup/shutdown, control equipment problems, process problems, other known causes, or other unknown causes).

(D) For RTO operating temperature:

(1) The operating limit established during the performance test.

(2) The number of 1-hour and 3-hour temperature averages below the minimum operating limit established during the performance test.

(3) An identification of each exceedance by start and end time, date, and cause of exceedance including startup/shutdown, control equipment problems, process problems, other known causes, or other unknown causes).

(E) For alternative parameters established according to §63.864(e)(13) or (14) subject to the requirements of §63.864(k)(1) and (2):

(1) The type of operating parameters monitored for compliance.

(2) The operating limits established during the performance test.

(3) The number of 3-hour parameter averages outside of the operating limits established during the performance test.

(4) An identification of each exceedance by start and end time, date, and cause of exceedance including startup/shutdown, control equipment problems, process problems, other known causes, or other unknown causes).

(iv) The nature and cause of the event (if known).

(v) The corrective action taken or preventative measures adopted.

(vi) The nature of repairs and adjustments to the CMS that was inoperative or out of control.

(4) If a source fails to meet an applicable standard, including any emission limit in §63.862 or any opacity or CPMS operating limit in §63.864, report such events in the semiannual excess emissions report. Report the number of failures to meet an applicable standard. For each instance, report the date, time and duration of each failure. For each failure, the report must include a list of the affected sources or equipment, and for any failure to meet an emission limit under §63.862, provide an estimate of the quantity of each regulated pollutant emitted over the emission limit, and a description of the method used to estimate the emissions.

(5) The owner or operator of an affected source or process unit subject to the requirements of this subpart and subpart S of this part may combine excess emissions and/or summary reports for the mill.

(d) *Electronic reporting.* (1) Within 60 days after the date of completing each performance test (as defined in §63.2) required by this subpart, the owner or operator must

submit the results of the performance test following the procedure specified in either paragraph (d)(1)(i) or (ii) of this section.

(i) For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT Web site (<https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert>) at the time of the test, the owner or operator must submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). (CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>.) Performance test data must be submitted in a file format generated through the use of the EPA's ERT or an alternate electronic file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT Web site. If the owner or operator claims that some of the performance test information being submitted is confidential business information (CBI), the owner or operator must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph (d)(1)(i).

(ii) For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the test, the owner or operator must submit the results of the performance test to the Administrator at the appropriate address listed in §63.13 unless the Administrator agrees to or specifies an alternative reporting method.

(2) The owner or operator must submit the notifications required in §63.9(b) and §63.9(h) (including any information specified in §63.867(b)) and semiannual reports to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX (<https://cdx.epa.gov>).) You must upload an electronic copy of each notification in CEDRI beginning with any notification specified in this paragraph that is required after October 11, 2019. The owner or operator must use the appropriate electronic report in CEDRI for this subpart listed on the CEDRI Web site (<https://www.epa.gov/electronic-reporting-air-emissions/compliance-and-emissions-data-reporting-interface-cedri>) for semiannual reports. If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, you must submit the report to the Administrator at all the appropriate addresses listed in §63.13. Once the form has been available in CEDRI for 1 year, you must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted.

(3) If you are required to electronically submit a report through CEDRI in the EPA's CDX, and due to a planned or actual outage of either the EPA's CEDRI or CDX systems within the period of time beginning 5 business days prior to the date that the submission is due, you will be or are precluded from accessing CEDRI or CDX and submitting a required report within the time prescribed, you may assert a claim of EPA system outage for failure to timely comply with the reporting requirement. You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or caused a delay in reporting. You must provide to the Administrator a written description identifying the date, time and length of the outage; a rationale for attributing the delay in reporting beyond the regulatory deadline to the EPA system outage; describe the

measures taken or to be taken to minimize the delay in reporting; and identify a date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported. In any circumstance, the report must be submitted electronically as soon as possible after the outage is resolved. The decision to accept the claim of EPA system outage and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

(4) If you are required to electronically submit a report through CEDRI in the EPA's CDX and a force majeure event is about to occur, occurs, or has occurred or there are lingering effects from such an event within the period of time beginning 5 business days prior to the date the submission is due, the owner or operator may assert a claim of force majeure for failure to timely comply with the reporting requirement. For the purposes of this section, a force majeure event is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents you from complying with the requirement to submit a report electronically within the time period prescribed. Examples of such events are acts of nature (e.g., hurricanes, earthquakes, or floods), acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility (e.g., large scale power outage). If you intend to assert a claim of force majeure, you must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or caused a delay in reporting. You must provide to the Administrator a written description of the force majeure event and a rationale for attributing the delay in reporting beyond the regulatory deadline to the force majeure event; describe the measures taken or to be taken to minimize the delay in reporting; and identify a date by which you propose to report, or if

you have already met the reporting requirement at the time of the notification, the date you reported. In any circumstance, the reporting must occur as soon as possible after the force majeure event occurs. The decision to accept the claim of force majeure and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

11. Section 63.868 is amended by revising paragraphs (b)(2) through (4) to read as follows:

§63.868 Delegation of authority.

* * * * *

(b) * * *

(2) Approval of a major change to test method under §63.7(e)(2)(ii) and (f) and as defined in §63.90.

(3) Approval of a major change to monitoring under §63.8(f) and as defined in §63.90.

(4) Approval of a major change to recordkeeping/reporting under §63.10(f) and as defined in §63.90.

12. Table 1 to Subpart MM of Part 63 is revised to read as follows:

Table 1 to Subpart MM of Part 63—General Provisions Applicability to Subpart MM

General provisions reference	Summary of requirements	Applies to subpart MM	Explanation
63.1(a)(1)	General applicability of the General Provisions	Yes	Additional terms defined in §63.861; when overlap between subparts A and MM of this part, subpart MM takes precedence.
63.1(a)(2)-(14)	General applicability of the General Provisions	Yes	
63.1(b)(1)	Initial applicability determination.	No	Subpart MM specifies the applicability in §63.860.
63.1(b)(2)	Title V operating permit—see 40 CFR part 70	Yes	All major affected sources are required to obtain a title V permit.
63.1(b)(3)	Record of the applicability determination	No	All affected sources are subject to subpart MM according to the applicability definition of subpart MM.

63.1(c)(1)	Applicability of subpart A of this part after a relevant standard has been set	Yes	Subpart MM clarifies the applicability of each paragraph of subpart A of this part to sources subject to subpart MM.
63.1(c)(2)	Title V permit requirement	Yes	All major affected sources are required to obtain a title V permit. There are no area sources in the pulp and paper mill source category.
63.1(c)(3)	[Reserved]	No	
63.1(c)(4)	Requirements for existing source that obtains an extension of compliance	Yes	
63.1(c)(5)	Notification requirements for an area source that increases HAP emissions to major source levels	Yes	
63.1(d)	[Reserved]	No	
63.1(e)	Applicability of permit program before a relevant standard has been set	Yes	
63.2	Definitions	Yes	Additional terms defined in §63.861; when overlap between subparts A and MM of this part occurs, subpart MM takes precedence.
63.3	Units and abbreviations	Yes	
63.4	Prohibited activities and circumvention	Yes	
63.5(a)	Construction and reconstruction—applicability	Yes	
63.5(b)(1)	Upon construction, relevant standards for new sources	Yes	
63.5(b)(2)	[Reserved]	No	
63.5(b)(3)	New construction/reconstruction	Yes	
63.5(b)(4)	Construction/reconstruction notification	Yes	
63.5(b)(5)	Construction/reconstruction compliance	Yes	
63.5(b)(6)	Equipment addition or process change	Yes	
63.5(c)	[Reserved]	No	
63.5(d)	Application for approval of construction/reconstruction	Yes	
63.5(e)	Construction/reconstruction approval	Yes	
63.5(f)	Construction/reconstruction approval based on prior State preconstruction review	Yes	
63.6(a)(1)	Compliance with standards and maintenance requirements—applicability	Yes	
63.6(a)(2)	Requirements for area source that increases emissions to become major	Yes	

63.6(b)	Compliance dates for new and reconstructed sources	Yes	
63.6(c)	Compliance dates for existing sources	Yes, except for sources granted extensions under 63.863(c)	Subpart MM specifically stipulates the compliance schedule for existing sources.
63.6(d)	[Reserved]	No	
63.6(e)(1)(i)	General duty to minimize emissions	No	See §63.860(d) for general duty requirement.
63.6(e)(1)(ii)	Requirement to correct malfunctions ASAP	No	
63.6(e)(1)(iii)	Operation and maintenance requirements enforceable independent of emissions limitations	Yes	
63.6(e)(2)	[Reserved]	No	
63.6(e)(3)	Startup, shutdown, and malfunction plan (SSMP).	No	
63.6(f)(1)	Compliance with nonopacity emissions standards except during SSM	No	
63.6(f)(2)-(3)	Methods for determining compliance with nonopacity emissions standards	Yes	
63.6(g)	Compliance with alternative nonopacity emissions standards	Yes	
63.6(h)(1)	Compliance with opacity and visible emissions (VE) standards except during SSM	No	
63.6(h)(2)-(9)	Compliance with opacity and VE standards	Yes	Subpart MM does not contain any opacity or VE standards; however, §63.864 specifies opacity monitoring requirements.
63.6(i)	Extension of compliance with emissions standards	Yes	
63.6(j)	Exemption from compliance with emissions standards	Yes	
63.7(a)(1)	Performance testing requirements—applicability	Yes	
63.7(a)(2)	Performance test dates	Yes	
63.7(a)(3)	Performance test requests by Administrator under CAA section 114	Yes	
63.7(a)(4)	Notification of delay in performance testing due to force majeure	Yes	
63.7(b)(1)	Notification of performance test	Yes	
63.7(b)(2)	Notification of delay in conducting a scheduled performance test	Yes	
63.7(c)	Quality assurance program	Yes	
63.7(d)	Performance testing facilities	Yes	

63.7(e)(1)	Conduct of performance tests	No	See §63.865.
63.7(e)(2)-(3)	Conduct of performance tests	Yes	
63.7(e)(4)	Testing under section 114	Yes	
63.7(f)	Use of an alternative test method	Yes	
63.7(g)	Data analysis, recordkeeping, and reporting	Yes	
63.7(h)	Waiver of performance tests	Yes	§63.865(c)(1) specifies the only exemption from performance testing allowed under subpart MM.
63.8(a)(1)	Monitoring requirements—applicability	Yes	See §63.864.
63.8(a)(2)	Performance Specifications	Yes	
63.8(a)(3)	[Reserved]	No	
63.8(a)(4)	Monitoring with flares.	No	The use of flares to meet the standards in subpart MM is not anticipated.
63.8(b)(1)	Conduct of monitoring	Yes	See §63.864.
63.8(b)(2)-(3)	Specific requirements for installing and reporting on monitoring systems	Yes	
63.8(c)(1)	Operation and maintenance of CMS	Yes	See §63.864.
63.8(c)(1)(i)	General duty to minimize emissions and CMS operation	No	
63.8(c)(1)(ii)	Reporting requirements for SSM when action not described in SSMP	Yes	
63.8(c)(1)(iii)	Requirement to develop SSM plan for CMS	No	
63.8(c)(2)-(3)	Monitoring system installation	Yes	
63.8(c)(4)	CMS requirements	Yes	
63.8(c)(5)	Continuous opacity monitoring system (COMS) minimum procedures	Yes	
63.8(c)(6)	Zero and high level calibration check requirements	Yes	
63.8(c)(7)-(8)	Out-of-control periods	Yes	
63.8(d)(1)-(2)	CMS quality control program	Yes	See §63.864.
63.8(d)(3)	Written procedures for CMS	No	See §63.864(f).
63.8(e)(1)	Performance evaluation of CMS	Yes	
63.8(e)(2)	Notification of performance evaluation	Yes	
63.8(e)(3)	Submission of site-specific performance evaluation test plan	Yes	
63.8(e)(4)	Conduct of performance evaluation and performance evaluation dates	Yes	
63.8(e)(5)	Reporting performance evaluation results	Yes	
63.8(f)	Use of an alternative monitoring method	Yes	
63.8(g)	Reduction of monitoring data	Yes	
63.9(a)	Notification requirements—applicability and general	Yes	

	information		
63.9(b)	Initial notifications	Yes	
63.9(c)	Request for extension of compliance	Yes	
63.9(d)	Notification that source subject to special compliance requirements	Yes	
63.9(e)	Notification of performance test	Yes	
63.9(f)	Notification of opacity and VE observations	Yes	Subpart MM does not contain any opacity or VE standards; however, §63.864 specifies opacity monitoring requirements.
63.9(g)(1)	Additional notification requirements for sources with CMS	Yes	
63.9(g)(2)	Notification of compliance with opacity emissions standard	Yes	Subpart MM does not contain any opacity or VE emissions standards; however, §63.864 specifies opacity monitoring requirements.
63.9(g)(3)	Notification that criterion to continue use of alternative to relative accuracy testing has been exceeded	Yes	
63.9(h)	Notification of compliance status	Yes	
63.9(i)	Adjustment to time periods or postmark deadlines for submittal and review of required communications	Yes	
63.9(j)	Change in information already provided	Yes	
63.10(a)	Recordkeeping requirements—applicability and general information	Yes	See §63.866.
63.10(b)(1)	Records retention	Yes	
63.10(b)(2)(i)	Recordkeeping of occurrence and duration of startups and shutdowns	No	
63.10(b)(2)(ii)	Recordkeeping of failures to meet a standard	No	See §63.866(d) for recordkeeping of (1) date, time and duration; (2) listing of affected source or equipment, and an estimate of the quantity of each regulated pollutant emitted over the standard; and (3) actions to minimize emissions and correct the failure.
63.10(b)(2)(iii)	Maintenance records	Yes	
63.10(b)(2)(iv)-(v)	Actions taken to minimize emissions during SSM	No	
63.10(b)(2)(vi)	Recordkeeping for CMS malfunctions	Yes	
63.10(b)(2)(vii)-(xiv)	Other CMS requirements	Yes	
63.10(b)(3)	Records retention for sources not subject to relevant standard	Yes	Applicability requirements are given in §63.860.
63.10(c)(1)-(14)	Additional recordkeeping requirements for sources with CMS.	Yes	
63.10(c)(15)	Use of SSM plan	No	

63.10(d)(1)	General reporting requirements	Yes	
63.10(d)(2)	Reporting results of performance tests	Yes	
63.10(d)(3)	Reporting results of opacity or VE observations	Yes	Subpart MM does not include any opacity or VE standards; however, §63.864 specifies opacity monitoring requirements.
63.10(d)(4)	Progress reports	Yes	
63.10(d)(5)(i)	Periodic startup, shutdown, and malfunction reports	No	See §63.867(c)(3) for malfunction reporting requirements.
63.10(d)(5)(ii)	Immediate startup, shutdown, and malfunction reports	No	See §63.867(c)(3) for malfunction reporting requirements.
63.10(e)(1)	Additional reporting requirements for sources with CMS - General	Yes	
63.10(e)(2)	Reporting results of CMS performance evaluations	Yes	
63.10(e)(3)(i)-(iv)	Requirement to submit excess emissions and CMS performance report and/or summary report and frequency of reporting	No	§63.867(c)(1) and (3) require submittal of the excess emissions and CMS performance report and/or summary report on a semiannual basis.
63.10(e)(3)(v)	General content and submittal dates for excess emissions and monitoring system performance reports	Yes	
63.10(e)(3)(vi)	Specific summary report content	No	§63.867(c)(1) specifies the summary report content.
63.10(e)(3)(vii)-(viii)	Conditions for submitting summary report versus detailed excess emission report	No	§63.867(c)(1) and (3) specify the conditions for submitting the summary report or detailed excess emissions and CMS performance report.
63.10(e)(4)	Reporting continuous opacity monitoring system data produced during a performance test	Yes	
63.10(f)	Waiver of recordkeeping and reporting requirements	Yes	
63.11	Control device requirements for flares	No	The use of flares to meet the standards in subpart MM is not anticipated.
63.12	State authority and delegations	Yes	
63.13	Addresses of State air pollution control agencies and EPA Regional Offices	Yes	
63.14	Incorporations by reference	Yes	
63.15	Availability of information and confidentiality	Yes	
63.16	Requirements for Performance Track member facilities	Yes	